# NPDES PHASE II GENERAL PERMIT APPLICATION STORMWATER QUALITY MANAGEMENT PLAN PART C: PROGRAM IMPLEMENTATION



**TOWN OF WESTFIELD, INDIANA** 

**PERMIT #INR040109** 

**FEBRUARY 2, 2005** 



# NPDES PHASE II STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) PART C: PROGRAM IMPLEMENTATION

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### TABLE OF CONTENTS

			Page :	ļ
LIS	T OF	TABLES	iv	
LIS	T OF	EXHIBITS	iv	
LIS	T OF	APPENDICES	iv	
1.0	INTR	ODUCTION	1	
2.0	MS4	AREA DESCRIPTION	3	
	2.1	NARRATIVE DESCRIPTION OF MS4 AREA	3	
	2.2	DESCRIPTION OF MS4 CONVEYANCE SYSTEMS	3	
	2.3	PART B CONCLUSIONS	4	
3.0	PUB	LIC EDUCATION AND OUTREACH	5	
	3.1	EXISTING PUBLIC EDUCATION AND OUTREACH BMPs	5	
	3.2	PROPOSED PUBLIC EDUCATION AND OUTREACH BMPs	6	
4.0	PUB	LIC PARTICIPATION AND INVOLVEMENT	15	
	4.1	EXISTING PUBLIC PARTICIPATION AND INVOLVEMENT BMPs	15	
	4.2 F	PROPOSED PUBLIC PARTICIPATION AND INVOLVEMENT BMPs	15	
5.0	ILLI	CIT DISCHARGE DETECTION AND ELIMINATION	24	
	5.1	EXISTING ILLICIT DISCHARGE DETECTION AND ELIMINATION BMPs	24	
		PROPOSED ILLICIT DISCHARGE DETECTION AND ELIMINATION BMPs	25	

6.0	СО	NSTRUCTION SITE RUNOFF CONTROL	32
	6.1	EXISTING CONSTRUCTION SITE STORMWATER RUNOFF CONTROL BMPs	32
	6.2	PROPOSED CONSTRUCTION SITE STORMWATER RUNOFF CONTROL BMPs	33
7.0	РО	ST-CONSTRUCTION STORMWATER RUNOFF CONTROL	39
	7.1	EXISTING POST-CONSTRUCTION STORMWATER RUNOFF CONTROL BMPs	39
	7.2	PROPOSED POST-CONSTRUCTION STORMWATER RUNOFF CONTROL BMPs	39
8.0	РО	LLUTION PREVENTION AND GOOD HOUSEKEEPING	45
	8.1	EXISTING POLLUTION PREVENTION AND GOOD HOUSEKEEPING BMPs	45
	_	PROPOSED POLLUTION PREVENTION AND GOOD HOUSEKEEPING BMPs	46
9.0	MS4	PROGRAM COSTS	57
	9.1	SWQMP DEVELOPMENT COST	57
	9.2	DETAILED PART C IMPLEMENTATION COST BY MCM OVER 2004-2008	58
	9.3	OTHER COMPLIANCE COSTS	59
	9.4	TOTAL SWQMP PROGRAM COSTS 2004 – 2008	60
	9.5	BUDGETARY NEEDS	61

10.	0 SUMMARY	62
	10.1 PROGRAMMATIC INDICATORS	62
	10.2 MASTER TIMELINE	67
	10.3 NEXT STEPS	73

### **LIST OF TABLES**

2-1	Conveyance Systems for Town of Westfield's MS4 Jurisdiction	4
3-1	Public Education and Outreach BMPs	11
4-1	Public Participation and Involvement BMPs	20
5-1	Illicit Discharge Detection and Elimination BMPs	29
6-1	Construction Site Storm Water Runoff Control BMPs	36
7-1	Post-Construction Storm Water Runoff Control BMPs	43
8-1	Storm Sewer System Maintenance Schedules	47
8-2	Pollution Prevention and Good Housekeeping BMPs	52
9-1	Total Program Cost	60
10-1	Programmatic Indicators	62
10-2	Master Timeline	67

#### **LIST OF EXHIBITS**

MS4 Area Map

#### LIST OF APPENDICES

- A. References
- B. Glossary of Terms
- C. Public Education Memorandum of Understanding
- D. SWQMP Part C: Program Implementation Certification Checklist
- E. Certification of the Informational Program for the Public Education and Outreach MCM
- F. Certification of the Public Participation and Involvement Program for the Public Participation and Involvement MCM
- G. Certification of the Plan to Detect, Address and Eliminate Illicit Discharges for the Illicit Detection and Elimination MCM
- H. Certification of the Development, Implementation, Management and Enforcement of an Erosion and Sediment Control Program for the Construction Site Storm Water Run-Off Control MCM
- I. Certification of the Development, Implementation, Management and Enforcement of a Postconstruction Storm Water Run-Off Control Program for the Post-Construction Storm Water Run-Off Control MCM
- J. Certification of the Development and Implementation, of a Program to Reduce Pollutant Run-Off from Municipal Operations for the Municipal Operations Pollution Prevention and Good Housekeeping MCM
- K. Listing of Industrial Facilities



### 1.0 INTRODUCTION

As part of the 1987 amendments to the federal Clean Water Act (CWA), the United States Congress added Chapter 402(p) to the CWA to address the water quality impacts of stormwater discharges from industrial facilities and large to medium municipal separate storm sewer systems (MS4s). Large to medium MS4s were defined as communities serving populations of 100,000 or more and are regulated by the Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System's (NPDES) Storm Water Phase I Program.

In addition to these amendments, Congress directed the Environmental Protection Agency (EPA) to issue further regulations to identify and regulate additional stormwater discharges that were considered to be contributing to national water quality impairments. On December 8, 1999, the EPA issued regulations that expanded the existing NPDES Storm Water Program to include discharges from small MS4s in "urbanized areas" serving populations of less than 100,000 and stormwater discharges from construction activities that disturb more than one acre of land. These regulations are referred to as the NPDES Phase II Storm Water Program. The urbanized area portion of the Town of Westfield met these criteria and was consequently designated as an MS4 entity.

In the State of Indiana, the Indiana Department of Environmental Management (IDEM) is responsible for the development and oversight of the NPDES Phase II Program. The IDEM initiated adoption of the Phase II Rules that were ultimately codified as 327 IAC 15-13 (Rule 13). Rule 13 became effective on August 6, 2003 and requires designated MS4 entities to apply for permit coverage by submitting a Notice of Intent (NOI) and developing Storm Water Quality Management Plans (SWQMPs) through a phased submittal process. The IDEM's phased submittal requirements for the SWQMP include the following three components:

- Part A: Initial Application
- Part B: Baseline Characterization Report
- Part C: Program Implementation Plan

All MS4s were required to submit NOI and SWQMP Part A documents to the IDEM by November 5, 2003. SWQMP Part B and Part C documents are required to be submitted by May 3, 2004 and November 5, 2004, respectively. The Town of Westfield's NOI and SWQMP Part A documents was submitted to IDEM on May 3, 2003. On August 31, 2004, the Town submitted a letter to the IDEM requesting a 90 day extension for submitting their SWQMP Part C. The extension was granted by IDEM and the Town's report is now due on February 2, 2005.

This report has been prepared to address Rule 13 requirements for completing the SWQMP Part C: Program Implementation Report, its corresponding certification form, and certification forms for each of the six Minimum Control Measures (MCMs) for the Town of Westfield, Indiana. This report includes the following information:



- An initial evaluation of the storm water program for the Town of Westfield's MS4 area, including information on all known structural and nonstructural storm water BMPs utilized,
- A detailed program description for each of the six MCMs, including Measurable goals with results that are related to an environmental benefit and Programmatic Indicators.
- A timetable for program implementation milestone, which includes milestones for each of the six MCMs.
- SWQMP-Part B: Baseline Characterization Report conclusions (BMP recommendations, additional protective measures for sensitive areas, and correcting identified water quality problems),
- A narrative and mapped description of the MS4 area boundaries that indicate responsible MS4 entity areas for each MCM, including specific boundaries of the MS4 area,
- An estimate of the linear feet of MS4 conveyances within the MS4 area, segregated by MS4 type, including open ditch and pipe,
- A summary of which structural BMP types will be allowed in new development and redevelopment for the MS4 area,
- A summary of the storm water structural BMP selection criteria and, where appropriate, associated performance standards that must be met after installation to indicate BMP effectiveness, and
- A summary of the current storm water budget, funding source, and a projection of the budget for each year within the five (5) year permit term.

In addition, the IDEM's SWQMP Part C: Program Implementation Report Certification Checklist and certification forms for each of the six MCMs are included in **Appendices D** through **J** of this report.

### MS4 AREA DESCRIPTION

Rule 13 requires a narrative and mapped description of the MS4 area boundaries and an estimate of the linear feet of MS4 conveyances within the MS4 area. The following discussion provides an evaluation the municipal stormwater conveyance system within the Town of Westfield's MS4 area. The map of the MS4 area is included as **Exhibit 1** of this report.

#### 2.1 NARRATIVE DESCRIPTION OF MS4 AREA

The Town of Westfield is primarily located in eastern Washington Township in Hamilton County, Indiana. The Town's current boundary goes as far east as the Noblesville Township Line, as far south as the Clay Township Line, just west of Spring Mill road, and just North of 203<sup>rd</sup> Street. The Town sits completely are partially in the following sections:

- Sec 1, 2, 10, 11, 12, 13, T18N, R3E
- Sec 5, 6, 7, 8, 17, 18, T18N, R4E
- Sec 19, 30, 31, 32, T19N, R4E
- Sec 19, 30, 31, 32, T19N, R4E
- Sec 24, 25, 35, 36, T19N, R3E

Exhibit 1 shows the Town's current MS4 area.

#### 2.2 <u>DESCRIPTION OF MS4 CONVEYANCE SYSTEMS</u>

A conveyance is defined by the IDEM as any structural process for transferring stormwater between at least two (2) points. The term includes piping, ditches, swales, curbs, gutters, catch basins, channels, storm drains, and roadside ditches. IDEM further defines MS4 conveyance systems as outfall conveyance systems with a pipe diameter of twelve (12) inches or larger and open ditches with a two foot or larger bottom width. Although this definition includes only the main trunks of pipes or open ditches that lead to each regulated outfall, mapping of the total conveyance system that would include tributaries to the main trunks would aid in illicit discharge detection and elimination efforts. **Table 2-1** lists the estimated linear feet of conveyance systems within the Town of Westfield's MS4 area broken down by type. This estimate will be used to determine the amount of MS4 conveyances to be mapped each year for compliance. Rule 13 requires that 25% of the total conveyance system be mapped each year, in permit years 2 through 5.



Table 2-1
Conveyance Systems for Town of Westfield's MS4 Area

Conveyance Type	Estimated Feet of Conveyance	% of Total
		Conveyance System
Open Storm Drain	200,000 ft	77%
Enclosed Pipe	60,000 ft	23%
Total	260,000 ft	100%

#### 2.3 Part B Conclusions

The Rule 13 SWQMP-Part B required the identification of areas having reasonable potential for or actually causing stormwater quality problems based upon relevant land use data and identified sensitive areas, as well as, existing and available water quality data. These areas are required to be given the highest priority for the selection of BMPs and the prohibition of new or significantly increased MS4 discharges.

Westfield's Part B submittal identified dozens of agricultural parcels within their MS4 area. In order to address potential water quality impacts associated with agricultural land use, the Town will continue to promote the Hamilton County Soil and Water Conservation District's (SWCD) existing agricultural outreach and assistance programs. This relationship is discussed in greater detail in **Section 3.2**.

The Part B submittal also identified numerous areas of highly erodible soils within the Town's MS4. In an effort to minimize the impact of these areas have on water quality, new development and redevelopment occurring on these areas will likely be prioritized for site inspections as a part of the Town's Construction Site Runoff Control Program. Priorities for construction activities are discussed in more detail in **Section 6.2**.

The Town's Part B submittal also discussed the Cool Creek Watershed Management Plan completed by Clark Dietz, Inc. Since the time of the Part B submittal, the Hamilton County Surveyor's office has been awarded a Section 319 grant from IDEM to modify the Cool Creek Watershed Management Plan to meet the IDEM's checklist entitled "What Needs to be in a Watershed Management Plan." In order to help develop quality goals, management measures, and an action plan that thoroughly address nonpoint source pollution issues in the Cool Creek Watershed and the Town of Westfield, the Town intends to serve on the Steering Committee formed as a part of this grant.

### 3.0 MINIMUM CONTROL MEASURE #1 PUBLIC EDUCATION AND OUTREACH

Rule 13 requires that residents, visitors, public service employees, commercial and industrial facilities, and construction site personnel within the MS4 area be informed about the impacts that polluted storm water runoff can have on water quality and ways they can minimize their impact on storm water quality. A reasonable attempt must be made to reach all constituents within the MS4 area. An initial assessment of the MS4 area constituents must be conducted to determine initial constituent knowledge and practices as they relate to storm water quality. The following discussion provides information on the Town of Westfield's MS4 area Public Education and Outreach Program.

### 3.1 EXISTING PUBLIC EDUCATION AND OUTREACH BMPs

The Town of Westfield has a wealth of public education oriented activities and mechanisms for disseminating information to the public. Although few existing activities are focused upon stormwater, demonstrating compliance with this MCM will require incorporation of additional stormwater education materials into existing activities or programs.

Existing Public Education and Outreach programs and activities performed by the Town of Westfield are as follows:

- When receiving calls regarding the disposal of HHW the Westfield Fire Department and Westfield Public Works Department encourage citizens to utilize the County HHW facility.
- Several Town departments and various local groups participate in annual community clean up events (Department of Public Works, Community Development Department, and Fire Department).
- When solicited Town departments give educational presentations to local groups on a wide variety of issues.
- Westfield operates a Town website, which provides citizens with a variety of information regarding Town departments, programs, and events.
- The Town has a quarterly newsletter that can be utilized to educate citizens on the goals and requirements of the Town's new storm water program.

The Town of Westfield's existing Public Education and Outreach activities will help ensure the Town's compliance with requirements of Rule 13. However, these activities are currently not sufficient to address the requirements of Rule 13.



#### 3.2 PROPOSED PUBLIC EDUCATION AND OUTREACH BMPs

In an effort to form a regional stormwater education partnership, the Town of Westfield, the Town of Arcadia, the City of Noblesville, the City of Carmel, the Town of Cicero, the Town of Fishers, and Hamilton County have formed the Hamilton County Phase II Public Education Steering Committee. The Committee's purpose is to develop and implement Public Education and Outreach and Public Participation and Involvement programs and activities throughout Hamilton County that are consistent and complimentary in nature.

In order to ensure the successful development and implementation of Public Education and Outreach and Public Participation and Involvement Programs in compliance with Rule 13, Westfield and the communities listed above have entered into a Memorandum of Understanding (MOU). A fully executed Copy of the MOU is included in **Appendix C** of this report. If for any reason, the Town of Westfield decides that the terms of the MOU are no longer in their best interest, they will terminate the agreement and will be responsible for implementing and/or revising the Public Education and Outreach and Public Participation and Involvement BMPs outlined below. Reduction goal percentages for this MCM will be correlated to the amount of constituent participation. Increasing participation will lead to increasing reductions in certain stormwater pollutants.

**Table 3-1** provides a summary of the Education and Outreach BMPs to be implemented and identifies the measurable goals, timelines, documentation and tracking needs, and responsible parties associated with each BMP. A detailed description of each BMP is provided below.

### **Hamilton County Phase II Public Education Steering Committee**

To ensure the effective development and implementation of Public Education and Outreach programs and activities, Hamilton County Phase II communities formed a partnership called the Hamilton County Phase II Public Education Steering Committee. The Committee's purpose is to develop and implement Public Education and Outreach and Public Participation and Involvement programs and activities throughout Hamilton County that are consistent and complimentary in nature.

The Committee has met six times during the development of this plan and will continue to meet monthly throughout 2005 to ensure effective implementation of Public Education and Outreach and Public Participation and Involvement BMPs as outlined in this plan. The frequency of meetings for the remainder of the permit term will be determined in the final quarter of 2005. The Town will document the number and description of each meeting, the number of Westfield representatives in attendance at each meeting, as well as progress made by the committee in their annual SWQMP report.

While committed to carrying out the BMPs outlined in this plan, the Hamilton County Public Education Steering Committee and the Town of Westfield will continue to identify new methods and opportunities for educating local residents throughout this permit term. In the event that educational BMPs besides those listed in this plan are implemented during this permit term, the Town will report them to IDEM in annual SWQMP reports as either additions or substitutions to BMPs listed in this plan.

#### **Public Meetings**

On January 26, 2005, Westfield held a Public Meeting to discuss the development of the Town's Storm Water Quality Management Plan (SWQMP). The purpose of the meeting was to educate citizens on the impacts that their daily activities have on stormwater quality, to solicit public input on the development of the Town's SWQMP, and to solicit public participation in the implementation of the SWQMP. The meeting complied with applicable public notice requirements. Similar meetings will be held in 2005 and throughout the remainder of the Town's permit term. The frequency of meetings for the remainder of the permit term will be determined in 2005. The Town will document the total number of meetings held and the attendance at each meeting. Meeting minutes will also be recorded. This information will be included in the Town's annual SWQMP report.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will facilitate future meetings. In the event that they do not, the Town will ensure that public meetings addressing stormwater quality are developed and implemented within the Town of Westfield.

### **Stormwater Survey**

As an active participant in the Hamilton County Phase II Public Education Steering Committee, the Town of Westfield will utilize the Stormwater Education Surveys developed by the Steering Committee to assess the initial stormwater knowledge of local constituents. The Surveys were distributed at various events throughout Hamilton County between the months of October and December 2004. Survey results were compiled during November and December of 2004 and will be evaluated early in 2005, in order to better target future education and outreach programs and activities. The results of the survey as well as any conclusions drawn will be included with the Town's first annual SWQMP report, which will be submitted to the IDEM in February of 2006. Town and County residents will be surveyed throughout the permit cycle to evaluate and monitor the effectiveness of the Town's stormwater education program. At a minimum surveys will be distributed during local events, at public meetings, and as inserts to local utility bills.

### **Stormwater Brochure**

The Hamilton County Phase II Public Education Steering Committee will develop and distribute three different stormwater brochures designed to educate residents, visitors, public service employees, commercial and industrial facilities, and construction site personnel about the impacts polluted stormwater runoff can have on water quality and the ways in which each constituency can minimize their impacts on stormwater quality.



In addition to general stormwater education, the brochure will include targeted outreach information on erosion and sediment control practices, illicit connections to the storm sewer system, improperly functioning septic systems, Household Hazardous Wastes services, and Report-A-Polluter programs. Additional brochures will be developed as topics and targeted activities necessitate them. Brochures will likely be disseminated via mass mailings, at local places of business, at government buildings, and various local events. Copies of the brochures along with the total number of brochures distributed will be documented and included in the Town's annual SWQMP report.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will develop these brochures. In the event that they do not, the Town will ensure that stormwater brochures are developed and distributed as outlined above.

### **Newsletter Articles**

The Hamilton County Soil and Water Conservation District (SWCD) currently publishes and disseminates a quarterly newsletter entitled Town & Country. The newsletter includes a variety of information on agricultural programs, conservation practices and erosion and sediment control practices. In addition, the City of Carmel, the Town of Westfield, the Hamilton County Parks Department, and various other local organizations publish newsletters, which are designed to keep citizens informed on a variety of local programs, activities, and events. These newsletters will now include articles that discuss various stormwater topics, such as erosion and sediment control measures, agricultural issues related to stormwater quality, opportunities for citizens to get involved with stormwater events such as community clean-up events and storm drain marking events, and other relevant information designed to enhance the urban and rural community's understanding of stormwater issues. The Hamilton County Phase II Public Education Steering Committee will be responsible for drafting these articles. The Town will document the total number of articles published, the topics of each article, and the total number of newsletters disseminated. This information will be included in the Town's first annual SWQMP report to be submitted in February of 2006.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will develop these articles. In the event that they do not, the Town will work with local newsletter publishers to incorporate stormwater articles into their respective newsletters.

#### **Solid Waste Management District Promotions**

In order to educate community members on the importance of pollution prevention and recycling programs, the Hamilton County Phase II Public Education Steering Committee will frequently advertise and promote the activities and services of the Household Hazardous Wastes (HHW) Facility operated by the Hamilton County Solid Waste Management District. Effective advertisement will help minimize illegal dumping activities and improper disposal of household hazardous wastes. The Hamilton County HHW facility distributes a variety of educational brochures related to proper disposal of hazardous wastes and conducts a variety of educational programs for local schools and civic groups. Advertisements and promotions for these services will occur on



stormwater websites and brochures to be developed as outlined in this plan. The Hamilton County HHW facility currently tracks the amount of waste collected at their facility. All educational activities, programs, and literature conducted and distributed and all wastes collected at the facility will be documented and included in the Town's annual SWQMP report.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will advertise Hamilton County Household Hazardous Waste services, in the event that they do not, the Town will promote and advertise those services as outlined above.

#### Website

The Town of Westfield will develop a stormwater website. The website will provide residents, visitors, public service employees, commercial and industrial facilities, and construction site personnel in Westfield about the impacts polluted stormwater runoff have on water quality and the ways in which each constituency can minimize the impacts their activities have on stormwater runoff. The website will provide dates. times, and sponsors of stormwater related events such as workshops, clean-up events, The website will include copies of the Town's SWQMP, and public meetings. stormwater related ordinances, and other relevant information. The website will include a counter to track the number of "hits" the site receives. In addition, the website will have an e-mail function by which citizens can ask questions or report problems regarding stormwater. The site will also provide links to stormwater websites developed by other Stormwater Phase II communities in Hamilton County and throughout the State of Indiana. Updates to the site will begin in February of 2005 and completion of the site will follow sometime prior to 2006. The total number of "hits", along with any questions or comments received, and all responses to questions or comments will be documented and submitted with the Town's annual SWQMP report.

#### Soil and Water Conservation District (SWCD) Activities

As discussed in the Town's Part B Submittal, land use within the Town's jurisdiction is trending towards increased residential and commercial land uses and decreased agricultural land uses. However, many parcels in and around the Town's MS4 area are still in agricultural production. In order to minimize potential impacts associated with agricultural land uses, agricultural producers need to be educated on and encouraged to use stormwater BMPs. The Town of Westfield will continue to promote existing SWCD programs and activities that encourage local agricultural producers to implement agricultural BMPs including, but not limited to, conservation tillage, nutrient and pesticide management, buffer strips, and wetland restoration. As necessary, the Town of Westfield will coordinate with the SWCD to include articles in their quarterly newsletter, *Town & Country*, on various issues including, stormwater quality, erosion and sediment control practices, agricultural issues related to stormwater quality, opportunities for citizens to get involved with stormwater events such as community clean up events and storm drain marking events, or other relevant stormwater information designed to enhance the urban and rural community's understanding of

stormwater issues. In addition, the Town of Westfield will assist SWCD with promoting its annual erosion and sediment control workshops, which are designed to educate public employees and developers on erosion and sediment control practices. All program activities will be documented in the Town's annual SWQMP report.

#### **Mass Media Solicitations**

Public Services Announcements (PSAs) have proven to be a very effective way to provide stormwater education to a large and diverse portion of the population. Local radio stations, TF stations, and newspapers will be contacted by the Hamilton County Phase II Public Education Steering Committee by November 2005 about the possibility of running stormwater quality PSAs. The Town will track the number of PSAs produced and the number of airings and publications. As this activity progresses, details will be included with the Town's annual SWQMP Report

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will conduct mass media solicitations. In the event that they do not, the Town will contact local media outlets about the possibility of running stormwater PSAs.

Table 3-1
Public Education and Outreach BMPs

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Hamilton County Phase II Public Education Committee	Attend and participate in monthly Steering Committee meetings to ensure the effective development and implementation of educational BMPs	Ongoing participation began in 2004.  Participation will continue through 2005 at a minimum.	<ul> <li>Document dates of meetings attended.</li> <li>Track attendees at each meeting.</li> <li>Record meeting minutes.</li> <li>Track financial contributions.</li> <li>Track Using Programmatic Indicators #1, #2, and #3.</li> </ul>	Westfield Public Works Department (Westfield PWD)  Hamilton County Phase II Public Education Steering Committee
Public Meetings	Conduct additional public meetings to educate citizens on stormwater quality and to solicit participation in stormwater programs.	Additional Public meetings conducted by July 2005.	<ul> <li>Document the date, time, attendance and outcome of each meeting</li> <li>Record meeting minutes.</li> <li>Include checkboxes on all sign up sheets allowing attendees to classify themselves as residents, visitors, public service employees, commercial and industrial employees, or construction site employees.</li> <li>Track using Programmatic Indicators #1, #2, and #3.</li> </ul>	Westfield PWD  Hamilton County Phase II Public Education Steering Committee

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Stormwater Survey	<ul> <li>Compile Survey results by January 2005, in order to identify existing constituent knowledge of stormwater issues.</li> </ul>	Results evaluated in January 2005	<ul> <li>Document the number of surveys distributed and methods used for distribution.</li> <li>Track survey responses.</li> <li>Track using Programmatic Indicators #1 and #2.</li> </ul>	Westfield PWD  Hamilton County Phase II Public Education Steering Committee Education Steering Committee
Stormwater Educational Brochures	Develop the first stormwater brochures by November 2005.	Begin distributing brochures by January 2006.	<ul> <li>Document the total number of each brochure that is distributed and methods used to distribute them.</li> <li>Track using Programmatic Indicator #1.</li> </ul>	Westfield PWD Hamilton County Phase II Public Education Steering Committee
Stormwater Newsletters	Work with the SWCD and other local entities to publish stormwater articles in existing newsletters and fliers.	Begin publishing stormwater articles during the first quarter of 2005.	<ul> <li>Track number of articles printed, and the number of articles disseminated.</li> <li>Save a copy of each newsletter containing educational stormwater information for inclusion in annual reports.</li> <li>Track using Programmatic Indicators #1.</li> </ul>	Westfield PWD  Hamilton County Phase II Public Educational Steering Committee

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Website	<ul> <li>Develop a regional stormwater website to educate constituents on stormwater quality.</li> </ul>	Beginning in 2005, then ongoing.	<ul> <li>Track the number of "hits" the site receives.</li> <li>Document all questions and comments received via the webpage</li> <li>Document all responses made to questions and comments received.</li> <li>Track using Programmatic Indicators #1.</li> </ul>	Westfield PWD
Solid Waste Management District (SWMD) Promotions	Continue promoting Hamilton County HHW facility services in 2005.	Promotions to begin in 2005, then ongoing.	<ul> <li>Continue to track the amount of material collected at HHW facilities.</li> <li>Document Dates, times, and attendance at all presentations to citizen and school groups that incorporate stormwater quality discussions.</li> <li>Track the number of stormwater brochures distributed on an annual basis.</li> <li>Track using Programmatic Indicators #2, #3, #10, #11, and #12.</li> </ul>	Westfield PWD  Hamilton County Phase II Education Steering Committee  Hamilton County Solid Waste Management District
Soil and Water	<ul> <li>As necessary,</li> </ul>	On-going and	Track number of stormwater	Westfield PWD
Conservation District (SWCD) Activities	coordinate with the SWCD to publish stormwater related	annual activities beginning in 2005.	related articles published.  Track the number of type of	Hamilton County Phase II Public

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
	articles in quarterly newsletters.  Promote existing SWCD education and outreach programs targeted towards the agricultural community. Promote annual erosion and sediment control trainings and workshops held by the local SWCD.		<ul> <li>educational programs and activities conducted targeting the agricultural community.</li> <li>Document dates, times and attendance at all workshops/trainings focused on stormwater quality related issues.</li> <li>Track using Programmatic Indicators #1, #2, and #3.</li> </ul>	Education Steering Committee
Mass Media Solicitation	<ul> <li>Contact local media outlet about running stormwater PSAs and articles.</li> </ul>	Contacts made in November 2005.	<ul> <li>Document number of contacts made and the number of stormwater articles or PSAs released per year.</li> <li>Track using Programmatic Indicator #1</li> </ul>	Westfield PWD Hamilton County Phase II Public Education Steering Committee

### 4.0 MINIMUM CONTROL MEASURE #2 PUBLIC PARTICIPATION & INVOLVEMENT

Rule 13 requires that documented opportunities are given to constituents within the MS4 area to participate in the storm water management program development and implementation. The MS4 entity must comply with public notice requirements to allow public comment. An initial assessment of MS4 area constituents must be conducted to identify interested individuals for participation in the MS4 area stormwater program.

#### 4.1 EXISTING PUBLIC PARTICIPATION AND INVOLVEMENT BMPs

In order to comply with this MCM, Westfield will need to demonstrate that citizens and community members were provided with ample opportunities to participate in the development and implementation of the SWQMP. The requirements of Rule 13 for this MCM are discussed in **Section 2.3**.

Existing Public Participation and Involvement activities performed by the Town of Westfield are as follows:

- Several Town departments and various local groups participate in annual community clean up events (Public Works Department, Community Development Department, and Fire Department).
- The Public Works Department manages the "Keep Westfield Beautiful" program.
- Scouts and other local groups participate in park and other community cleanup events.

The Town of Westfield's existing Public Participation and Involvement activities will help ensure the Town's compliance with requirements of Rule 13. However, these activities are currently not sufficient to address the requirements of Rule 13.

### 4.2 PROPOSED PUBLIC PARTICIPATION AND INVOLVEMENT BMPs

As mentioned in **Section 3.2** in an effort to form a regional stormwater education partnership the Town of Westfield, the Town of Arcadia, the City of Noblesville, the City of Carmel, the Town of Cicero, and Hamilton County have formed the Hamilton County Phase II Public Education Steering Committee. The Committee's purpose is to develop and implement Public Education and Outreach and Public Participation and Involvement programs and activities throughout Hamilton County that are consistent and complimentary in nature.



In order to ensure the successful development and implementation of Public Education and Outreach and Public Participation and Involvement Programs in compliance with Rule 13, the Town of Westfield and the communities listed above have entered into a Memorandum of Understanding (MOU). A fully executed copy of the MOU is included in **Appendix C** of this report. If for any reason, the Town of Westfield decides that the terms of the MOU are no longer in their best interest they will terminate the agreement, and will be responsible for implementing and/or revising the Public Education and Outreach and Public Participation and Involvement BMPs as outlined below.

**Table 4-1** provides a summary of the Public Participation and Involvement BMPs to be implemented and identifies the measurable goals, timelines, documentation and tracking needs, and responsible parties associated with each BMP. A detailed description of each BMP is provided below.

### **Hamilton County Phase II Public Education Committee**

To ensure the effective development and implementation of Public Education and Outreach programs and activities, Hamilton County Phase II communities (Hamilton County, the City of Carmel, the Town of Cicero, the City of Noblesville, the Town of Westfield, and the Town of Arcadia) formed a partnership called the Hamilton County Phase II Public Education Steering Committee. The Committee's purpose is to develop and implement Public Education and Outreach and Public Participation and Involvement program and activities throughout Hamilton County that are consistent and complimentary in nature.

The Committee has met six times during the development of this plan and will continue to meet monthly throughout 2005 to ensure effective implementation of Public Education and Outreach and Public Participation and Involvement BMPs as outlined in the plan. The frequency of meetings for the remainder of the permit term will be determined in the final quarter of 2005. The Town will document the number and description of each meeting, the number of Westfield representatives in attendance at each meeting, as well as progress made by the committee in their annual SWQMP report.

While committed to carrying out the BMPs outlined in this plan, the Hamilton County Public Education Steering Committee and the Town of Westfield will continue to identify new methods and opportunities for educating local residents throughout this permit term. In the event that educational BMPs besides those listed in this plan are implemented during this permit term, the Town will report them to IDEM in annual SWQMP reports as either additions or substitutions to BMPs listed in this plan.

#### **Storm Drain Marking**

Beginning in September 2005, the Hamilton County Phase II Public Education Steering Committee will organize and conduct storm drain marking activities. These events will increase citizen awareness of the local stormwater programs through public participation. The Hamilton County Phase II Public Education Steering Committee will



identify locations such as subdivisions, commercial parks, and other areas located in the Town of Westfield and Hamilton County that warrant storm drain marking and will be tasked with coordinating and advertising these events and programs as well as identifying local volunteers and sponsors interested in participating in the programs. The Town will document the number of volunteers that participate in storm drain marking events as well as the number and location of storm drains marked or cast. This information will be included in the Town's annual SWQMP report.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will organize and conduct storm drain marking activities, in the event that they do not, the Town will organize and conduct storm drain marking activities within the Town's MS4 area.

### **Clean-Up Events**

Beginning in 2005, the Hamilton County Phase II Public Education Steering Committee will assist various groups with administering annual community clean-up events. These events will increase citizen awareness of local stormwater programs through participation. The Steering Committee will identify locations (common areas, stream segments, etc.) throughout the both the Town and County that warrant such activities. Clean-up events will occur in conjunction with "Earth Day", the "Great American Clean-Up", the County 4-H Fair, Carmel Fest, and/or the White River Clean-Up. The Steering Committee will promote and advertise these events and programs as well as identify local volunteers and sponsors interested in participating in the events. The Town will document the number of volunteers that participate in these events, as well as, the amount of waste collected as a result of these events. This information will be included in the Town's annual SWQMP report.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will assist local groups with administering local community cleanup events, in the event that they do not, the Town will assist local groups with conduction and administering annual Community Clean-up events within the Town's MS4 area.

#### **Solid Waste Management District Promotions**

In order to educate community members on the importance of pollution prevention and recycling programs, the Hamilton County Phase II Public Education Steering Committee will frequently advertise and promote the activities and services of the Household Hazardous Waste (HHW) Facility operated by the Hamilton County Solid Waste Management District. Effective advertisement will help minimize illegal dumping activities and improper disposal of household hazardous wastes. The Hamilton County HHW facility distributes a variety of educational brochures related to proper disposal of hazardous wastes and conducts a variety of educational programs for local schools and civic groups. Advertisements and promotions for these services will occur on stormwater websites and brochures to be developed as outlined in this plan. The Hamilton County HHW facility currently tracks the amount of waste collected at their facility. All educational activities, programs, and literature conducted and distributed and all waste collected at the facility will be documented and included in the Town's



annual SWQMP report.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will advertise Hamilton County Household Hazardous Waste services, in the event that they do not, the Town will promote and advertise those services as outlined above.

#### Soil and Water Conservation District (SWCD) Activities

As discussed in the Town's Part B Submittal, land use within the Town's jurisdiction is trending towards increased residential and commercial land uses and decreased agricultural land uses. However, many parcels in and around the Town's MS4 area are still in agricultural production. In order to minimize potential impacts associated with agricultural land uses, agricultural producers need to be educated on and encouraged to use stormwater BMPs. The Town of Westfield will continue to promote existing SWCD programs and activities that encourage local agricultural producers to implement agricultural BMPs including, but not limited to, conservation tillage, nutrient and pesticide management, buffer strips, and wetland restoration. As necessary, the Town of Westfield will coordinate with the SWCD to include articles in their quarterly newsletter, Town & Country, on various issues including, stormwater quality, erosion and sediment control practices, agricultural issues related to stormwater quality, opportunities for citizens to get involved with stormwater events such as community clean up events and storm drain marking events, or other relevant stormwater information designed to enhance the urban and rural community's understanding of stormwater issues. In addition, the Town of Westfield will assist the SWCD with promoting its annual erosion and sediment control workshops, which are designed to educate public employees and developers on erosion and sediment control practices. All program activities will be documented in the Town's annual SWQMP report.

### Rule 13 Public Participation Lists

Beginning in 2005, the Phase II Public Education Steering Committee will identify those groups and individuals that would be most likely to have an interest in local Stormwater Programs. They will also develop a list of volunteer activities, such as, water quality monitoring, storm drain marking, and community cleanup events that identified groups and individuals would most likely participate in. These lists will be used to document that sufficient opportunities were allotted to involve all constituents interested in participating in stormwater programs. Public participation lists, number of contacts made to individuals and groups, and volunteer hours donated will be included with the Town's annual SWQMP report.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will develop Public Participation Lists, in the event that they do not, the Town will develop public participation lists specific to their MS4 area.

#### **Concerns from Citizens Report/Report-A-Polluter**

The Town of Westfield Public Works Department currently has a *Concerns From Citizens Website* that allows for citizens to complete an online form in order to report concerns relating to water, sewer, street, parks, storm water, or other Town managed projects and infrastructure. The Town documents how it responds to all complaints received.

In addition, the Hamilton County Phase II Public Education Steering Committee will implement a "Report-A-Polluter" program to field complaints from the public on illegal dumping, illicit discharges, poor erosion control practices, and other activities that negatively impact stormwater quality. Citizens will have the opportunity to submit such complaints through an e-mail hotline. The program will improve public involvement and will serve as an education tool to inform the public about hazards associated with illicit discharges and illegal dumping.

As an active member of the Hamilton County Phase II Public Education Committee the Town will work to ensure that their existing *Concerns From Citizens Website* is as consistent as possible with the Report-A-Polluter Website to be developed by the Phase II Public Education Steering Committee.

The Town will continue to document the number of complaints received and follow up actions taken on all complaints. All of this information will be compiled and included in the Town's annual SWQMP report.

Table 4-1
Public Participation and Involvement BMPs

Best Management Practice (BMP)	Measurable Goals and Programmatic Indicators	Timeline	Documentation and Tracking	Responsible Party
Hamilton County Phase II Public Education Committee	Attend and participate in monthly Steering Committee meetings to ensure the effective development and implementation of educational BMPs.	Ongoing participation began in 2004.  Participation will continue through 2005 at a minimum.	<ul> <li>Document dates of meetings attended.</li> <li>Track attendees at each meeting.</li> <li>Record meeting minutes.</li> <li>Track financial contributions.</li> <li>Track using Programmatic Indicators #1, #2, and #3.</li> </ul>	Westfield Public Works Department (Westfield PWD)  Hamilton County Phase Il Public Education Steering Committee
Storm Drain Marking	Develop and implement an annual storm drain marking event by October 2005.  Develop and implement an annual storm drain marking event by October 2005.	Begin in 2005, then ongoing.	<ul> <li>Document dates, time, and attendance, at each event.</li> <li>Number and location of all marked inlets.</li> <li>Include checkboxes on all sign up sheets allowing attendees to classify themselves as residents, visitors, public service employees, commercial and industrial employees, or construction site employees.</li> <li>Track using Programmatic Indicators #1, #2, #3 and #4.</li> </ul>	Westfield PWD  Hamilton County Phase II Public Education Steering Committee

Best Management Practice (BMP)	Measurable Goals and Programmatic Indicators	Timeline	Documentation and Tracking	Responsible Party
Clean-Up Events	Promote and advertise existing community and stream clean-up events through stormwater newsletter articles, brochures, and websites.	Begin in 2005, then ongoing.	<ul> <li>Document the date, time, and attendance, at each event.</li> <li>Include checkboxes on all sign up sheets allowing attendees to classify themselves as residents, visitors, public service employees, commercial and industrial employees, or construction site employees.</li> <li>Document the amount of waste collected as a result of these events.</li> <li>Track using Programmatic Indicators #1, #2, and #3.</li> </ul>	Westfield PWD  Hamilton County Phase II Public Education Steering Committee
Solid Wastes Management District (SWMD) Promotions	Begin promoting     Hamilton County     HHW facility services     in 2005.	Promotions to begin in 2005, then ongoing.	<ul> <li>Continue to track the amount of material collected at HHW facilities</li> <li>Document dates, times, and attendance at all presentations to citizens and school groups that incorporate stormwater quality discussions.</li> <li>Track the number of stormwater brochures distributed on an annual basis.</li> </ul>	Westfield PWD  Hamilton County Phase Il Public Education Steering Committee  SWMD



Best Management Practice (BMP)	Measurable Goals and Programmatic Indicators	Timeline	Documentation and Tracking	Responsible Party
			<ul> <li>Track using Programmatic Indicators #2, #3, #10, #11, and #12.</li> </ul>	
Soil and Water Conservation District (SWCD)	<ul> <li>Coordinate with the SWCD to:</li> <li>Publish stormwater articles in quarterly newsletter.</li> <li>Provide education and outreach programs targeted towards the agricultural community.</li> <li>Conduct annual ESC workshops and trainings.</li> </ul>	On-going and annual activities beginning in the first quarter of 2005.	<ul> <li>Document the number of stormwater related articles published.</li> <li>Document the number and type of educational programs and activities conducted targeting the agricultural community.</li> <li>Document dates, times, and attendance at all workshops/trainings focused on stormwater quality.</li> <li>Track using Programmatic Indicators #1, #2, and #3</li> </ul>	Westfield PWD  Hamilton County Soil and Water Conservation District
Rule 13 Public Participation List	<ul> <li>Identify all groups and individuals likely to have an interest in participating in stormwater programs.</li> </ul>	Beginning in 2005, then ongoing.	<ul> <li>Document interested groups and individuals and submit this list in annual SWQMP reports.</li> <li>Track using Programmatic Indicator #1, #2, and #3.</li> </ul>	Westfield PWD  Hamilton County Phase Il Public Education Steering Committee



Best Management Practice (BMP)	Measurable Goals and Programmatic Indicators	Timeline	Documentation and Tracking	Responsible Party
Concerns from Citizens/Report-A- Polluter	Continue existing Concerns From Citizens Website, and work with the Hamilton County Phase II Steering Committee to develop consistency with their Report-A- Polluter website.	Already implemented.	<ul> <li>Document the number of complaints received and all follow up actions taken on complaints.</li> <li>Track using Programmatic Indicators #2, #3, and #16</li> </ul>	Westfield PWD  Hamilton County Phase II Public Education Steering Committee

### 5.0 MINIMUM CONTROL MEASURE #3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

Rule 13 requires the development and implementation of a strategy to detect and eliminate illicit discharges to the MS4 conveyance. A storm sewer system map showing the location of all outfalls and MS4 conveyances under the MS4 operator's control and the names and locations of all waters that receive discharges from those outfalls must be developed. Through an ordinance or other regulatory mechanism, illicit discharges must be prohibited from entering the MS4 conveyances and appropriate enforcement procedures and actions are required.

A plan must be developed to detect, address, and eliminate illicit discharges, including illegal dumping into the MS4 conveyance. This plan must locate problem areas via dry weather screening or other means, determine the source, remove or otherwise correct illicit connections, and document actions taken. The plan must also identify all active industrial facilities within the MS4 area that discharge into the MS4 conveyance.

All public employees, businesses, and the general public must be educated about the hazards associated with illicit discharges and the improper disposal of waste. The educational effort must include informational brochures and guidances for specific audiences and school curricula and the public reporting of illicit discharges and spills. In order to give the public alternatives to improper disposal of wastes, the MS4 entities must initiate or help coordinate existing recycling programs for commonly dumped wastes, such as motor oil, antifreeze, and pesticides.

#### 5.1 EXISTING ILLICIT DISCHARGE IDENTIFICATION AND ELIMINATION BMPs

Compliance with MCM #3 requires MS4s to develop and implement a strategy to detect and eliminate illicit discharges to the MS4 conveyance system. To this end, the Town will need to develop a storm sewer system map that identifies specified conveyances and outfalls. In addition, to maximize effectiveness, it will be important for all field staff to receive training and education regarding illicit discharges to ensure that staff identify and respond to illicit discharges appropriately.

Existing Illicit Discharge Detection and Elimination activities performed by the Town of Westfield are as follows:

- Westfield Town Ordinance 03-20 prohibits stormwater from entering the sanitary sewer.
- When responding to calls regarding Hazardous Waste Spills, the Fire Department ensures containment of all chemicals.



- All Town Firefighters are trained in the "Awareness in Operations" level regarding hazardous material clean up and response. All firefighters complete this program on an annual basis.
- Approximately 30% of the Westfield Fire Department has attended Texas A&M's Tank Farm Firefighting School, which focuses on fighting and responding to flammable liquid fires.
- The Westfield Fire Department performs inspections on all Town businesses, and tracks all Sara Title III facilities.

#### 5.2 PROPOSED ILLICIT DISCHARGE DETECTION AND ELIMINATION BMPs

The following Illicit Discharge Detection and Elimination (IDDE) BMPs will be developed and implemented by the Town of Westfield in order to comply with the minimum requirements of this MCM. The IDDE BMPs address discharges affecting stormwater only. Existing BMPs identified in subsection 5.1 with any needed enhancements, as well as, any new BMPs are included in this section. As of January 2005, the Town of Westfield has initiated the implementation of a Storm Water Illicit Discharge Detection and Elimination Program as part of this Part C Plan, which outlines the overall strategy for gradually implementing the program and its corresponding BMPs over the next four years. The Town's program is designed to gain a thorough awareness of the Town's separate storm sewer conveyance system and thereby allowing the identification and elimination of illicit discharges entering the system. The program also establishes the legal, technical, and educational means needed to eliminate illicit discharges. The Town's reduction goal is to eliminate 25% of known illicit discharges to the storm sewer system per year for permit years two through five.

**Table 5-1** provides a summary of the IDDE BMPs listed below and identifies the measurable goals, timelines, documentation and tracking needs, and responsible parties associated with each BMP. A detailed description of each BMP is provided below.

#### **Stormwater System Map**

As required by Rule 13, the Town will develop a storm sewer system map that identifies the locations of all outfalls and conveyances under the MS4 operator's control. Having this map will increase effectiveness of Town responses to illicit discharges entering the storm sewer system. All conveyance systems with a pipe diameter of twelve inches or larger and open ditches with a two foot or larger bottom width will be mapped in the first permit term. The map will also identify all waters that receive discharges from those outfalls. As required by Rule 13, 25% of the conveyance system will be mapped in the second year of the permit. An additional 25% of the system will be mapped in each of the consecutive years of the permit resulting in 100% of the system being mapped at the end of the five year permit term. The Town intends to hire a GIS Technician to assist with the development of the storm sewer map, and estimates that initially this will



account for approximately one third of this person's time. If funding and resources are available the Town will complete mapping requirements sooner than predicted by this plan. Mapping activities will be documented and included in the Town's annual SWQMP report.

#### **Illicit Discharge Detection and Elimination Ordinance**

As required by Rule 13, the Town will develop, implement, and enforce an Illicit Discharge Detection and Elimination (IDDE) ordinance, which provides legal authority to keep illicit discharges out of the stormwater conveyance system. The Town of Westfield Public Works Department will be responsible for enforcing the requirements of the IDDE ordinance. The Town anticipates that the ordinance will be adopted in June 2005.

### **Illicit Discharge Detection and Elimination Plan**

The Town has developed an IDDE Plan, which is bound separately as supplemental material, to ensure effective detection and elimination of illicit discharges to the Town of Westfield's separate storm sewer system. The Town's IDDE Plan identifies the methods for detecting, addressing, and eliminating illicit discharges, including illegal dumping, into the Town's MS4 conveyance system. The plan includes specifics on dry weather screening, methods for determining the source of illicit discharges, removing or correcting illicit connections, and documenting actions taken. Existing smoke testing and storm sewer video inspection capabilities are incorporated into the IDDE plan. Illicit connections and discharges identified will be scheduled for elimination based on relative water quality impacts. Program adjustments will be documented in the Town's annual SWQMP report. A listing of active industrial facilities in the MS4 area, contact information, and standard industrial classification codes are contained in **Appendix K.** 

### Concerns from Citizens Report/Report-A-Polluter

The Town of Westfield Public Works Department currently has a *Concerns From Citizens Website* that allows citizens to complete an online form in order to report concerns relating to water, sewer, street, parks, storm water, or other Town managed projects and infrastructure. The Town documents how it responds to all complaints received.

In addition, the Hamilton County Phase II Public Education Steering Committee will implement a "Report-A-Polluter" program to field complaints from the public on illegal dumping, illicit discharges, poor erosion control practices, and other activities that negatively impact stormwater quality. Citizens will have the opportunity to submit such complaints through an e-mail hotline. The program will improve public involvement and will serve as an education tool to inform the public about hazards associated with illicit discharges and illegal dumping.

As an active member of the Hamilton County Phase II Public Education Committee the Town will work to ensure that their existing *Concerns From Citizens Website* is as consistent as possible with the Report-A-Polluter Website to be developed by the Phase II Public Education Steering Committee. The Town will continue to document the number of complaints received and follow up actions taken on all complaints. All of this



information will be compiled and included in the Town's annual SWQMP report.

### **Storm Drain Marking**

Beginning in September 2005, the Hamilton County Public Education Steering Committee will organize and conduct storm drain marking activities in order to increase citizen awareness of the Town's stormwater program through public participation. The Public Education Steering Committee will identify locations such as subdivisions, commercial parks, and other areas that warrant storm drain marking and will be tasked with coordinating and advertising these events and programs as well as identifying local volunteers and sponsors interested in participating in the programs. The Town will document the number of volunteers that participate in storm drain marking events as well as the number and location of storm drains marked or cast. This information will be included in the Town's annual SWQMP report.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will organize and conduct storm drain marking activities. In the event that they do not, the Town will organize and conduct storm drain marking activities within the Town's MS4 area.

#### **Solid Waste Management District Promotions**

In order to educate community members on the importance of pollution prevention and recycling programs, the Hamilton County Phase II Public Education Steering Committee will frequently advertise and promote the activities and services of the Household Hazardous Waste (HHW) Facility operated by the Hamilton County Solid Waste Management District. Effective advertisement will help minimize illegal dumping activities and improper disposal of household hazardous wastes. The Hamilton County HHW facility distributes a variety of educational brochures related to proper disposal of hazardous wastes and conducts a variety of educational programs for local schools and Advertisements and promotions for these services will occur on civic groups. stormwater websites and brochures to be developed as outlined in this plan. The Hamilton County HHW facility currently tracks the amount of waste collected at their facility. All educational activities, programs, and literature conducted and distributed and all waste collected at the facility will be documented and included in the Town's annual SWQMP report.

The Town anticipates that the Hamilton County Phase II Public Education Steering Committee will advertise Hamilton County Household Hazardous Waste services. In the event that they do not, the Town will promote and advertise those services.

### Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training

Beginning in 2005, the Town will ensure that appropriate staff are trained on the hazards associated with illicit discharges, improper disposal of waste, and pollution prevention practices. The training will include discussions on ways to manage activities to prevent substantial quantities of chemicals and water from entering the Town's stormwater conveyance system. Appropriate Town staff will be trained beginning in 2005 and periodic refresher sessions will be conducted at least annually. The Town will



document training opportunities provided and attendees. Trainings will emphasize how substantial quantities of chemicals and water can lead to elevated levels of nutrients and toxins in receiving waters. Additional topics will include proper storage and disposal of hazardous wastes, vegetative waste handling, fertilizer and pesticide application, and the function of Town-operated and maintained BMPs. The number of trainings, number of staff attending trainings, and information presented will be tracked and reported in annual SWQMP reports.

This training will be incorporated into the Town's existing weekly *Lets Talk Safety* training program attended by Westfield PWD field and maintenance employees. The *Lets Talk Safety* program is a training program developed by the American Water Works Association that is designed to be used as a weekly communication and training tool for utility employees. The 52 week training program includes discussions on many subjects including chemical hazards.

Table 5-1
Illicit Discharge Detection and Elimination BMPs

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Stormwater System Map	Map 25% of the conveyance system on an annual basis between 2005 and 2008.	Beginning in 2005, then ongoing.	Track using Programmatic Indicators #5 and #6.	Westfield PWD
Illicit Discharge Detection and Elimination (IDDE) Ordinance	<ul> <li>Adopt an IDDE ordinance by June 2005.</li> </ul>	Implementation beginning June 2005.	<ul> <li>Track using Programmatic Indicators #7, #8, and #9</li> </ul>	Westfield PWD
IDDE Plan	<ul> <li>Identify and eliminate illicit storm sewer connections.</li> </ul>	Implementation beginning June 2005, then ongoing.	<ul> <li>Track using Programmatic Indicators #7, #8, and #9.</li> </ul>	Westfield PWD
Concerns From Citizens/Report-A- Polluter	Continue existing Concerns From Citizens Website, and work with the Hamilton County Phase II Steering Committee to develop consistency with their Report-A- Polluter website.	Already implemented.	<ul> <li>Document the number of complaints received and all follow up actions taken on complaints.</li> <li>Track using Programmatic Indicator #2, and #3</li> </ul>	Westfield PWD  Hamilton County Phase II Public Education Committee

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Storm Drain Marking	Develop and implement an annual storm drain marking event by October 2005.	Begin in October 2005, then ongoing.	<ul> <li>Document the date, time, and attendance at each event.</li> <li>Number and location of all marked inlets.</li> <li>Include checkboxes on all sign up sheets allowing attendees to classify themselves as residents, visitors, public service employees, commercial and industrial employees, or construction site employees.</li> <li>Track using Programmatic Indicators #1, #2, #3, and #4.</li> </ul>	Westfield PWD  Hamilton County Phase II Public Education Steering Committee
Solid Waste Management District Promotions	Begin promoting the Hamilton County HHW facility in 2005.	Promotions to begin in 2005, then on-going.	<ul> <li>Continue to track the amount of material collected at the HHW facility.</li> <li>Document dates, times, and attendance at all presentations to citizen and school groups that incorporate stormwater quality discussions.</li> <li>Track the number of stormwater brochures distributed on an annual basis.</li> <li>Track using Programmatic</li> </ul>	Westfield PWD  Hamilton County Phase Il Public Education Steering Committee  Hamilton County Solid Waste Management District

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
			Indicators #2, #3, #10, #11, and #12.	
Annual IDDE, Good Housekeeping, & Pollution Prevention Staff Training	<ul> <li>Develop and implement an annual IDDE and Good Housekeeping training programs by November 2005.</li> </ul>	Trainings held in 2005, then annual updates.	<ul> <li>Document number of staff trained, number of training events held, and the curriculum covered in each training session.</li> <li>Track using Programmatic Indicator #2 and #3.</li> </ul>	Westfield PWD

## 6.0 MINIMUM CONTROL MEASURE #4 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Rule 13 requires the development of an ordinance or other regulatory mechanism and establishment of a construction program that controls polluted runoff from construction activities that disturb one or more acres of land in the MS4 area. This construction program must include a permitting process, erosion control plan review process, site inspections, and enforcement. The permitting process must include a requirement for the construction project site owner to submit a copy of the permit application directly to IDEM. MS4 entities must provide an opportunity to the local SWCD to provide comments and recommendations to the MS4 operator on individual projects.

The construction program must include requirements for the implementation of appropriate BMPs on construction sites to control sediment, erosion, and other waste. MS4 entities must review and approve construction plans submitted by the construction site operator before construction activity commences. Procedures must be developed for site inspection and enforcement to ensure that BMPs are properly installed. These procedures must include a means to identify priority sites for inspection and enforcement, as well as, a means to receive and consider public inquiries, concerns, and information submitted regarding local construction activities. A tracking process must be implemented in which submitted public information is documented and then give to appropriate staff for follow up.

MS4 area personnel responsible for plan review, inspection, and enforcement of construction activities shall receive annual training.

#### 6.1 EXISTING CONSTRUCTION SITE STORMWATER RUNOFF CONTROL BMPs

Compliance with MCM #4 requires MS4s to develop, implement, manage, and enforce an erosion and sediment control program for construction activities that disturb one or more acres of land within the MS4 area. In the Town of Westfield, Storm Water Runoff Controls for all construction activities are currently regulated via the Zoning Ordinance and the State of Indiana's Rule 5 requirements.

Existing local Construction Site Runoff Control activities implemented by the Town of Westfield are as follows:

- Continue to review site development plans; erosion and sediment control plans; and conduct site reviews to ensure compliance with the Comprehensive Plan and Zoning Ordinance.
- Continue to coordinate the development review process with various Town departments, the Surveyor's Office, SWCD, and Health Department.
- The Hamilton County SWCD performs erosion and sediment control reviews on new development within the town's jurisdiction.



 The majority of new developments in Westfield are connected to the sanitary sewer.

#### 6.2 PROPOSED CONSTRUCTION SITE STORMWATER RUNOFF CONTROL BMPs

The following Construction Site Stormwater Runoff Control BMPs will be developed and implemented by the Town of Westfield in order to comply with the minimum requirements of this MCM. Existing BMPs identified in subsection 6.1 with any needed enhancements, as well as, any new BMPs are included in this section. It is anticipated that beginning in June 2004, the Town of Westfield will have initiated the implementation of a Construction Site Stormwater Runoff Control Program as part of this Part C Plan, which outlines the overall strategy for gradually implementing the program and its corresponding BMPs over the next four years. The Town's program is designed to minimize the amount of sediment and other pollutants being discharged from construction sites. The presumptive approach of implementing this program assumes that these pollutants will be reduced each year.

**Table 6-1** provides a summary of the Construction Site BMPs to be implemented and identifies the measurable goals, timelines, documentation and tracking needs, and responsible parties associated with each BMP. A detailed description of each BMP is provided below.

#### **Erosion and Sediment Control Ordinance**

To minimize water quality impacts of development occurring within the Town of Westfield and ensure that new and redevelopment within the MS4 area is managed as efficiently as possible, the Town has developed a stormwater ordinance meeting the minimum requirements of 327 IAC 15-5 (Rule 5). This ordinance will be administered and enforced through the Westfield Public Works Department. This ordinance is part of a comprehensive stormwater ordinance that addresses construction runoff and post-construction runoff. The Town will review the ordinance annually to ensure it meets the minimum requirements of Rule 5.

#### Plan Review, Site Inspection, and Enforcement

Staff from the Westfield Public Works Department will conduct erosion and sediment control plan reviews, construction site inspections, and if necessary, refer sites for enforcement actions. This will ensure that construction plans are being implemented properly and that sites are in compliance with the Town's ordinance. The Town intends to review 100% of construction plans and inspect 100% of construction sites with land disturbances greater than or equal to one acre within the Town's jurisdiction. Plans will also be made available to the SWCD upon request. The Town of Westfield is currently looking to hire a Professional Engineer, who will be charged with assisting the Town with plan reviews associated with this MCM. The Town estimates that assistance with Phase II plan reviews and coordination will account for approximately one quarter of this staff person's time. The Town is also planning to hire a new inspector who will assist with site inspections associated with Phase II requirements. The Town estimates that one third of this person's time will be associated with Phase II requirements.



Construction site operator compliance will be documented by tracking the number of requests made for construction plan revisions, corrections made in response to inspection reports, and enforcement action required corrections. All such activities will be documented in the Town's annual SWQMP report.

#### **Staff Training**

The Town will ensure that all erosion and sediment control plan review and inspection staff receives annual IDNR or equivalent training and that an adequate level of staffing is in place to account for increased workloads associated with performing erosion and sediment control plan reviews, inspections, and enforcements, as mandated by Rule 13. All training activities will be documented and reported in the Town's annual SWQMP report.

#### **Erosion and Sediment Control and Post-Construction BMP Tracking Database**

By June of 2005, the Town will utilize a database to ensure efficient management and accurate reporting on the status of development with Town of Westfield. The BMP tracking database will be utilized to track the status of construction projects, erosion and sediment control activities and violations, community complaints, public informational request, and Post-Construction BMPs. The database will serve as an aid to inspection staff for follow-up inspections and, if necessary, enforcement actions. The Town will submit any updates made to the database to the IDEM on a monthly basis. All activities associated with the database will be summarized and included in the Town's annual SWQMP report.

#### **Training for Construction Professionals**

The Town will advertise and promote education and training opportunities for local construction and development professionals. IDNR, the Hamilton County SWCD, and various other organizations around the state are planning to hold a variety of training modules on erosion and sediment control and post construction policies and technologies. Appropriately trained professionals will improve the effectiveness of construction and post-construction planning, which will hopefully minimize the water quality impacts associated with new and redevelopment. The Town will document all training programs promoted, and will work with sponsoring agencies to track the participation and attendance of the local construction and development professionals in such events. All relevant information will be included in the Town's annual SWQMP report.

#### **Procedure for Prioritizing Construction Activities**

By November 2005, the Town will implement a procedure for prioritizing construction activities for plan review, inspection, and enforcement. This procedure will ensure that construction and development site inspections are as effective as possible. Sites greater than or equal to 10 acres in size and sites containing slopes greater than or equal to 4%, wetlands, or endangered, threatened, or rare species will likely be prioritized for more frequent inspections. A copy of the final written procedure will be submitted to the IDEM in the Town's annual SWQMP report.



#### **Inspection and Enforcement Documentation**

The Town will adopt the IDNR standard Inspection and Enforcement Form for Erosion and Sediment Control inspectors to complete following each site inspection. The form will ensure that Town procedures are consistent with the State's Rule 5 program. To improve program compliance, all developers will be given a copy of the form following each inspection and required to sign suggesting their understanding and willingness to address any BMP inadequacies identified. If follow-up inspections prove that the identified BMP inadequacies were not addressed, the form will outline enforcement measures to be taken by the Town. The IDNR standard Inspection and Enforcement form will be implemented in 2005. The form will be submitted with the Town's first annual SWQMP report in February 2006. Subsequent annual reports will include a copy of each form completed during each site inspection.

#### **Quality Assurance/Quality Control (QA/QC) of Overall Program**

In order to ensure consistency with the State's Rule 5 program and maintain overall program quality, the Town will comply with Rule 5 on Town owned and operated projects. In 2005, the Town will work with IDEM & IDNR to seek approval for the QA/QC program and to review Town owned and operated projects. The Town will continue to review the QA/QC program with agencies on an annual basis and forward any changes to IDEM in the Town's annual SWQMP report. The Town will track the number of Town projects subject to Rule 5, the number of IDNR and IDEM meetings, and information discussed during the meetings.

Table 6-1
Construction Site Stormwater Runoff Control BMPs

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Erosion and Sediment Control Ordinance	<ul> <li>Adopt and begin implementing ESC Ordinance by June 2005.</li> </ul>	The ordinance will be completed by June 2005, and be reviewed and updated annually.	Document the number of construction sites occurring within the Town's MS4 area.	Westfield PWD
Plan Review, Site Inspection, and Enforcement	<ul> <li>Review 100% of construction plans and inspect 100% of construction sites disturbing greater than or equal to one acre of land.</li> </ul>	Beginning June 2005, then on- going.	<ul> <li>Document the number of plans reviewed, the number of site inspections made, and the number of enforcement actions taken.</li> <li>Track using Programmatic Indicators #13, #14, and #15.</li> </ul>	Westfield PWD
Staff Training	Town staff will annually attend ESC trainings beginning in 2005.	First training conducted by June 2005, and occurring annually thereafter.	<ul> <li>Document the date of the trainings, the issues covered at the trainings, and the number of staff members participating in the trainings.</li> <li>Track using Programmatic Indicators #2 and #3.</li> </ul>	Westfield PWD
Erosion and Sediment Control and Post- Construction BMP Tracking Database	<ul> <li>Develop a tracking system by June of 2005 to ensure effective</li> </ul>	Beginning June 2005, then ongoing.	<ul> <li>Document the number of plans reviewed, the number of site inspections made and the number of enforcement actions</li> </ul>	Westfield PWD

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
	management of active construction projects.		taken, the location of structural BMPs installed, inspected, and maintained or improved.	
			<ul> <li>Submit monthly reports to IDEM.</li> <li>Track using Programmatic Indicators #13, #14, #15, #16,</li> </ul>	
Training for Construction Professionals	Promote and advertise training programs and modules conducted by IDNR and other organizations.	Beginning in 2005, then ongoing.	<ul> <li>#17, #18, #19, #20, and #21</li> <li>Document the date of the trainings, the issues covered at the trainings, and the number participants attending the trainings.</li> <li>Document promotional methods implemented.</li> <li>Track using Programmatic Indicator #2.</li> </ul>	Westfield PWD
Procedure for Prioritizing Construction Activities	Develop a procedure for prioritizing construction sites by November 2005.	November 2005	<ul> <li>Submit written procedure to IDEM with the Town's first annual SWQMP report.</li> <li>Track using Programmatic Indicator #15.</li> </ul>	Westfield PWD

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Inspection and Enforcement Documentation	<ul> <li>Develop plan review and inspection forms in 2005 to ensure effective management of active construction projects.</li> </ul>	June 2005	<ul> <li>Submit copies of forms in annual SWQMP reports.</li> </ul>	Westfield PWD
QA/QC of Overall Program	<ul> <li>Comply with Rule 5 on Town owned and operated projects.</li> <li>Review Construction Program with agencies at least once prior to the end of the first permit.</li> </ul>	Begin in June 2005, then on- going.	Document dates, times and attendance at each meeting.	Westfield PWD

## 7.0 MINIMUM CONTROL MEASURE #5 POST-CONSTRUCTION STORM WATER RUNOFF CONTROL

Rule 13 requires the development of an ordinance or other regulatory mechanism and establishment of a post-construction program that addresses runoff from new development and redevelopment areas that disturb one or more acres of land in the MS4 area. This program must include a permitting process, plan review process, site inspections, and enforcement. MS4 area personnel responsible for plan review, inspection, and enforcement of post-construction BMPs shall receive annual training.

Where appropriate, MS4 entities must use a combination of storage, infiltration, filtering, or vegetative practices to reduce the impact of pollutants in storm water runoff on receiving waters in areas that are the responsibility of the MS4 entity. A written Operational and Maintenance (O&M) Plan must be developed and implemented for all existing storm water structural BMPs, which are under the control of the MS4 entity. As new post-construction BMPs are added to areas under the control of the MS4 entity, the O&M Plan must be updated accordingly.

## 7.1 EXISTING POST-CONSTRUCTION STORMWATER RUNOFF CONTROL BMPs

Compliance with this MCM requires MS4s to develop a program for managing post-construction Best Management Practices (BMPs) that will ensure adequate, long-term stormwater quality benefits in new development and redevelopment activities. Once construction is complete, post-construction practices specified by the MS4 must be implemented to ensure adequate stormwater quality is maintained from the developed site via an enforceable ordinance or other regulatory mechanism.

#### **Existing Post-Construction Storm Water Runoff Control Programs and Activities:**

 Westfield Comprehensive Plan and Zoning Ordinance currently lack requirements and discussions regarding the control of the quantity and quality of stormwater from developed areas. However, through the development of a post construction stormwater ordinance, such as the one recommended below, Westfield can quickly enter into compliance with the post construction requirements of Rule 13.

## 7.2 PROPOSED POST-CONSTRUCTION STORMWATER RUNOFF CONTROL BMPs

The following Post-Construction Site Stormwater Runoff Control BMPs will be developed and implemented by Town of Westfield in order to comply with the minimum requirements of this MCM. Existing BMPs identified in subsection 7.1 with any needed enhancements, as well as, any new BMPs are included in this section. The Town's ordinance will be implemented on a Town-wide basis. It is anticipated that beginning in June 2005 the Town of Westfield will have initiated the implementation of a Post-



Construction Site Stormwater Runoff Control Program as part of this Part C Plan, which outlines the overall strategy for gradually implementing the program and its corresponding BMPs over the next four years. The Town's program is designed to ensure adequate stormwater quality is maintained from developed sites. The presumptive approach of implementing this program assumes that overall stormwater quality will improve each year. The draft Hamilton County Drainage Standards Manual, which is currently under development and will likely be adopted by the Town, contains specific reduction goal percentages for each BMP.

**Table 7-1** provides a summary of the Post-Construction Site Runoff BMPs to be implemented and identifies the measurable goals, timelines, documentation and tracking needs, and responsible parties associated with each BMP. A detailed description of each BMP is provided below.

#### **Post-Construction Control Ordinance**

The comprehensive runoff ordinance discussed in **Section 6.2** includes Post-Construction provisions that meet the minimum requirements of 327 IAC 15-13 (Rule 13). The Post-Construction provisions will minimize the water quality impacts from new/redevelopment within the Town of Westfield and ensure that new/redevelopment within the Town's MS4 area is managed as efficiently as possible. The Town of Westfield is considering adopting the draft Hamilton County Drainage Standards Manual as their official technical standards document.

The draft Hamilton County Drainage Standards Manual adopts a policy that controls stormwater runoff quality based on Total Suspended Solids (TSS). This requirement would be adopted as the basis of Westfield's stormwater quality management program for all areas of jurisdiction.

The draft Hamilton County Drainage Standards Manual currently identifies twelve preapproved BMP methods to be used alone or in combination to achieve the stormwater quality goals for a given project. BMP measures likely to appear include, but may not be limited to, the measures listed below.

- Bioretention
- Catch Basin inserts
- Cistern
- Wetland
- Wet Detention
- Underground Detention

- Extended Dry Detention
- Infiltration Basin
- Infiltration Trench
- Media Filtration Underground Sand
- Media Filtration Surface Sand
- Filter Strips

Note that a single BMP measure may not be adequate to achieve the water quality goals for a project. It is for this reason that a "treatment train", a number of BMPs in a series, is often required for a project.

Details regarding the pollutant removal rates and the applicability and design of these pre-approved BMPs are contained within the draft Hamilton County Drainage Standards



Manual. The information provided establishes performance criteria for stormwater quality management and procedures to be followed when preparing a BMP plan for compliance. Post-construction BMPs must be sized to treat the water quality volume, WQv, for detention-based BMPs or the water quality discharge, Qwq, for flow-through BMPs. The Technical Standards Document provides the methodology for calculating the water quality volume and water quality discharge values.

According to the draft Hamilton County Drainage Standards Manual, BMPs not previously accepted must be certified by a professional engineer licensed in State of Indiana and accepted through the County. American Society of Testing and Materials (ASTM) standard methods must be followed when verifying performance of new measures. New BMPs, individually or in combination, must meet the 80% TSS removal rate at 50-125 micron range (silt/fine sand) without re-entrainment and must have a low to medium maintenance requirement to be considered by the County. Testing to establish the TSS removal rate must be conducted by an independent testing facility, not the BMP manufacturer.

The Town's ordinance will be administered and enforced by the Westfield PWD Director or his designee. The Town will review the ordinance at least once prior to the end of the first permit term to ensure it meets the minimum requirements of Rule 5.

The draft Hamilton County Drainage Standards Manual referenced above is currently still under development and is anticipated to be completed by June of 2005. The Town will include any and all relevant updates associated with their Post-Construction Program with their annual SWQMP report.

#### Plan Review, Site Inspection, and Enforcement

The Town of Westfield PWD will utilize a combination of existing and new staff to perform post-construction plan reviews, erosion and sediment control reviews, post-construction BMP inspections and construction site inspections associated with new and redevelopment occurring within the Town's MS4 area. This will ensure that post-construction BMP plans are being implemented properly and that sites and BMPs are in compliance with the Town's comprehensive Stormwater Runoff Ordinance. Construction site operator compliance will be documented via completion of requested plan revisions, corrections made in response to inspection reports and form requests, and corrections made in response to enforcement actions.

#### Staff Training

All Town staff responsible for conducting erosion and sediment control and post construction plan reviews and inspections will receive annual IDNR or equivalent training prior to conducting plan reviews and inspections associated with the Town's Stormwater Runoff Ordinance. All training activities including specific curriculum, as well as the number of staff trained will be documented and reported on in the Town's annual SWQMP report.

#### **Inspection and Enforcement Documentation**

The Town will develop an inspection and enforcement form for inspectors to complete following each site inspection to ensure that Town procedures are consistent with State's Rule 5 program. The form will require inspectors to document Post-Construction BMP adequacies and inadequacies identified during each visit. All construction site managers will be given a copy of the completed form following each inspection and be required to sign the form as an indication of their understanding and willingness to address any BMP inadequacies identified. If follow-up inspections prove that the identified BMP inadequacies were not addressed, the form will outline enforcement measures to be taken by the Town. Prior to implementation, the form will be reviewed by an IDNR Stormwater Specialist. The form will be submitted to the IDEM with the Town's first annual report in February 2006.

#### Post-Construction BMP Operation and Maintenance Plan

Currently, the Town does not own or operate any post-construction BMPs. However, upon the acquisition of any future BMPs, the Town will develop and implement an Operation and Maintenance (O&M) Plan for Town owned post-construction BMPs to ensure long-term effectiveness and adequacy of newly installed BMPs. It is anticipated that any necessary maintenance activities will be performed under the direction of the Town and will be tracked in accordance with the Town's Maintenance Schedule and Database BMP. All activities associated with this BMP will be included with the Town's annual SWQMP report.

#### **Erosion and Sediment Control and Post-Construction BMP Tracking Database**

Beginning in 2005, the Town of Westfield will document and track the status of construction projects, erosion and sediment control activities, and post-construction BMPs. The database will ensure efficient management and accurate reporting on the status of development within Town of Westfield. The database will be utilized to track and document erosion and sediment control violations, community complaints, public informational requests, and Post-Construction BMPs. The Town will submit a summary from the database in their monthly construction reports to IDEM. Activities associated with the database will be summarized and included in the Town's annual SWQMP report.

#### **Training for Construction Professionals**

The Town will advertise and promote education and training opportunities for local construction and development professionals. IDNR, the Hamilton County SWCD and various other organizations around the state are planning to hold a variety of training modules on erosion and sediment control and post-construction policies and technologies. Appropriately trained professionals will improve the effectiveness of construction and post-construction planning, which will hopefully minimize the water quality impacts associates with new and redevelopment. The Town will document all training programs promoted and will work with sponsoring agencies to track the participation and attendance of local construction and development professionals in such events. All relevant information will be included in the Town's annual SWQMP report.



Table 7-1
Post-Construction Site Stormwater Runoff Control BMPs

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Post-Construction Control Ordinance	<ul> <li>Develop and implement Post - Construction ordinance by June 2005.</li> </ul>	The ordinance will be adopted by June 2005, and will be reviewed and updated annually.	Document the number of construction sites occurring within the Towns MS4 area.	Westfield PWD
Plan Review, Site Inspection, and Enforcement	<ul> <li>Review 100% of construction plans and inspect 100% of construction sites disturbing greater than or equal to one acre of land.</li> </ul>	Beginning 2005, then on-going.	<ul> <li>Document the number of plans reviewed, the number of site inspections made and the number of enforcement actions taken.</li> </ul>	Westfield PWD
Staff Training	<ul> <li>Conduct annual staff trainings beginning in 2005 to ensure that plan review and site inspection staff is properly trained on erosion and sediment control techniques.</li> </ul>	First training conducted by June 2005, and occurring annually thereafter.	<ul> <li>Document the date of the training, the issues covered at the training, and the number of staff members participating in the training.</li> <li>Track using Programmatic Indicators #2 and #3.</li> </ul>	Westfield PWD
Inspection and Enforcement Documentation	<ul> <li>Develop plan review and inspection forms by June 2005.</li> </ul>	Developed by June 2005.	<ul> <li>Save a copy of all plan review and site inspection forms for submittal with the Town's annual SWQMP report.</li> </ul>	Westfield PWD

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Post-Construction BMP Operation and Maintenance Plan	Currently, not applicable.	Currently, not applicable.	<ul> <li>When necessary, plan will be developed.</li> <li>Track using Programmatic Indicator #19.</li> </ul>	Westfield PWD
Erosion and Sediment Control and Post- Construction BMP	<ul> <li>Develop a tracking system by June 2005 to ensure effective management of active construction projects.</li> </ul>	Beginning June 2005, then ongoing.	<ul> <li>Document the number of Plans reviewed, the number of site inspections made and the number of enforcement actions taken, the location of structural BMPs installed, inspected, and maintained or improved.</li> </ul>	Westfield PWD
Tracking Database			<ul> <li>Submit monthly reports to IDEM.</li> <li>Track using Programmatic Indicators #13, #14, #15, #16, #17, #18, #19, #20, and #21</li> </ul>	
Training for Construction Professionals	<ul> <li>Promote and advertise training programs and modules conducted by IDNR and other organizations.</li> </ul>	Beginning in 2005, then ongoing.	<ul> <li>Document the date of the trainings, the issues covered at the trainings, and the number participants attending the trainings.</li> <li>Track using Programmatic Indicators #2</li> </ul>	Westfield PWD

## 8.0 MINIMUM CONTROL MEASURE #6 POLLUTION PREVENTION AND GOOD HOUSEKEEPING

Rule 13 requires the development and implementation of a program to prevent or reduce polluted runoff from municipal operations within the MS4 area. The program must include written documentation of maintenance activities, maintenance schedules, and long term inspection procedures for BMPs to reduce floatables and other pollutants discharged from the separate storm sewers.

Controls must be implemented for reducing or eliminating the discharge of pollutants from operational areas, including roads, parking lots, maintenance and storage yards, and waste transfer stations. Written procedures must be developed and implemented for the proper disposal of waste or materials removed from separate storm sewer systems and operational areas. New flood management projects must be assessed via written documentation for their impacts on water quality and existing flood management projects must be examined for incorporation of additional water quality protection devices or practices. MS4 entity employees must be properly trained on various topics, such as, fertilizer and pesticide application, and the function of BMPs. Such training must be documented in writing.

#### 8.1 EXISTING POLLUTION PREVENTION AND GOOD HOUSEKEEPING BMPs

Compliance with this MCM requires MS4s to develop and implement a program to prevent or reduce pollutant runoff from municipal operations within the MS4 area. The Town of Westfield is currently implementing a number of recommended Stormwater Pollution Prevention BMPs.

Existing Pollution Prevention and Good Housekeeping Programs and Activities:

- The Westfield Wastewater Treatment Plant is equipped with secondary containment in areas of chemical storage.
- The majority of maintenance on town owned vehicles is outsourced to local repair shops.
- PWD maintenance garages are connected to the sanitary sewer.
- The PWD documents public complaints and request via an MS Access database. Complaints are received on the main DPW phone line.
- The Town maintains a covered salt storage facility.
- When receiving calls regarding the disposal of HHW the Westfield Fire Department encourages citizens to utilize the County's HHW facility.



- The Fire Department participates in the County's Hazardous Materials Task Force.
- The Westfield Fire Department performs inspections on all businesses, and tracks all Sara Title III facilities. Material Safety Data Sheets are left at all facilities where hazardous materials are stored.
- The Fire Department responds to accidents and incidents involving the spillage of hazardous materials and chemicals and ensures that all chemicals are properly contained. The responding wrecker company or the Hamilton County Emergency Management Agency, whomever responds, is responsible for the final removal of chemicals from the site.
- All Town Firefighters are trained to "Awareness in Operations" level regarding hazardous material clean up and response. All firefighters complete this program on an annual basis.
- The fire department keeps records on hazardous response and cleanup.
   Record keeping is based on National Fire Inventory Reporting System (NFIRS).

#### 8.2 PROPOSED POLLUTION PREVENTION AND GOOD HOUSEKEEPING BMPs

The following Pollution Prevention and Good Housekeeping BMPs will be developed and implemented by the Town of Westfield in order to comply with the minimum requirements of this MCM. Existing BMPs identified in subsection 8.1 with any needed enhancements, as well as, any new BMPs are included in this section. As of January 2005, Town of Westfield has initiated the implementation of a Pollution Prevention and Good Housekeeping Program as part of this Part C Plan, which outlines the overall strategy for gradually implementing the program and its corresponding BMPs over the next four years. The Town's program is designed to address the quality of stormwater discharges from Town activities to their MS4 conveyance system. The presumptive approach of implementing this program assumes that overall stormwater quality will improve each year by reducing the amounts of pollutants entering the conveyance system. Reduction goal percentages will be correlated to amounts of BMPs installed, amounts of material collected from BMPs, and plans implemented. For example, when a certain amount of street sweeping material is collected, it is assumed that the unknown total amount of material entering the conveyance system is reduced by the amount collected.

**Table 8-2** provides a summary of the Pollution Prevention and Good Housekeeping BMPs to be implemented and identifies the measurable goals, timelines, documentation and tracking needs, and responsible parties associated with each BMP. A detailed description of each BMP is provided below.

#### MS4 Conveyance System Maintenance Plan and Documentation

By February 2005, the Town will begin tracking stormwater conveyance system and operational area maintenance activities. Maintenance schedules will be kept at all Town maintenance areas and updated annually. Scheduling and tracking of maintenance activities will increase overall program effectiveness. The database will track all good housekeeping measures performed by the Town including, street sweeping, periodic litter pickups, periodic BMP and catch basin cleaning, storm sewer inspections conducted, roadside shoulder and ditch stabilization conducted, storm sewer maintenance and remediation performed, pesticides and fertilizers applied, secondary containment devices installed, and salt and sand storage areas that have been enhanced. The database will be gueried in order to include information on all maintenance activities conducted in the Towns annual SWQMP reports. Table 8-1 summarizes the Town's maintenance schedule for performing periodic litter pick-up. periodic BMP structure cleaning, periodic pavement cleaning, roadside should and ditch stabilization, planting and proper care of roadside vegetation, and remediation of outfall scouring.

Table 8-1
Storm Sewer System Maintenance Schedules

Storm Sewer System Maintenance Schedules			
A. Periodic Litter Pickup	Town staff will annually conduct litter pickup events along major thoroughfares, at stormwater outfalls and other areas to be prioritized during the first permit term.		
B. Periodic BMP Structure Cleaning	Town-owned and operated BMPs will be maintained as specified in their O&M manuals. However, long term storm sewer catch basins maintenance schedules will be determined after the first permit term.		
C. Periodic Pavement Sweeping	Town streets will be swept two times per year. All street sweeping activities will be documented on an annual basis.		
D. Roadside Shoulder and Ditch Stabilization	Roadside shoulder and ditches will be inspected annually. Repairs will be prioritized and repaired as needed.		
Planting and Proper Care of Roadside     Vegetation	Roadside inspections will include vegetative inspections.		
F. Remediation of Outfall Scouring	Stormwater outfalls will be evaluated for scouring and erosion in conjunction with IDDE screening activities. Decisions for remedial actions will be made at the time of problem identification.		

#### **Secondary Containment**

Beginning in 2005, the Town will begin implementing secondary containment measures within all facilities that store hazardous chemicals and all around refueling tanks. Public Works Department garages will be the primary facility for which these measures will be implemented. Implementation of secondary containment devices will reduce the potential impact of accidental spills of concentrated solutions, acids, alkalies, salts, oils, or other polluting materials that could contaminate stormwater runoff. In the event that other Town-owned and operated facilities begin storing hazardous chemicals in the future, secondary containment measures will be implemented at those facilities as well. The types of secondary containment devices implemented, their location, and any information specific to these devices will be included in the Town's annual SWQMP report.

#### **Salt and Sand Management**

The Westfield Public Works Department currently stores road salt in a covered and enclosed facility. Sand is currently stored on asphalt in a three sided concrete bay that is uncovered. The Town will inspect the sand storage area monthly and after significant rain events and maintenance will be conducted as needed.

Beginning in 2005, the Town will annually document the total weight/cubic yards of salt applied to Town roads. Also, Public Works Department personnel will be instructed to maintain salt and sand storage areas by conducting regular maintenance and sweeping activities necessary to minimize the risks that these areas pose to stormwater runoff quality. All activities associated with salt and sand management and maintenance will be included in the Town's annual SWQMP report.

#### **Chemical Spill Response**

Beginning in 2005, the Town will post spill response plans at all Town facilities where hazardous materials, fuels and other chemicals are used, mixed, or stored. Relevant Town staff members will be required, beginning in 2005, to receive annual training on proper handling and storage of hazardous materials as well as proper spill response techniques. Additional training will be conducted as necessary. All facilities in which hazardous materials are stored will be evaluated annually for safety. In the event additional facilities are determined to pose a stormwater risk, the Town will take the proper steps to ensure that the hazardous materials are stored properly and that secondary containment measures are in place. The Town will document all activities associated with chemical spill response. This information will be included in the Town's annual SWQMP report.

#### **Wash Water Management**

Currently Town owned vehicles and equipment are washed in a variety of ways and at a variety of locations as noted below:

#### **Public Works Department**

All Public Works Department vehicles and equipment are washed in the departments washing bay which is connected to the Town's Sanitary Sewer System. The Town will



continue to wash all vehicles at this facility within areas connected to the Town's Sanitary Sewer.

#### **Police Department**

Police Department vehicles are washed in a wash bay that is connected to the storm sewer system. However, wash waters pass through an oil and water separator prior to entering the storm sewer system. The Department will document that regular maintenance is conducted on the oil water system.

#### **Fire Department**

Fire Department vehicles are washed within the Department's maintenance facility which is connected to the storm sewer system. However, wash waters travel through an oil and water separator prior to entering the storm sewer system. The Department will document that regular maintenance is conducted on the oil and water separator.

In the event that some vehicle or apparatus washing must be conducted in areas not connected to the sanitary sewer or in areas that are not routed through oil and water separators, the Town will ensure that runoff from these activities are routed through appropriate BMPs, such as hydrocarbon removing catch basin inserts.

#### **Waste Disposal**

Beginning in 2005, the Town will document the disposal of all waste generated from operational areas and from maintaining the Town's stormwater conveyance system. Such waste include, but are not limited to, dredge spoil, accumulated sediments, floatables and debris. Town staff will determine if the waste generated can be reused, recycled, or require disposal in a sanitary landfill. The Town will contract with a private firm for those wastes that require disposal in a landfill. The Town will document all activities associated with waste disposal including the types of waste generated, the amount of waste generated and the methods by which the waste was disposed. This information will be included in the Town's annual SWQMP report.

#### **Street Sweeping Program**

The Town is currently sweeping all Town roads at least twice per year. Beginning in 2005, they will track the number of curb miles swept and the amount of material collected as a result of street sweeping activities on an annual basis. In addition, the Town will contract with a waste disposal company to properly collect and dispose of all materials collected. This information will be included in the Town's annual SWQMP report.

#### **Snow Disposal Areas**

Beginning in 2005, any snow that is cleared and pushed into large piles from Town roads and operational areas will be located away from stormwater inlets and conveyances to ensure that there is minimal potential for pollutant runoff to impact MS4 area receiving waters.



#### Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training

Beginning in 2005, the Town will ensure that appropriate staff are trained on the hazards associated with illicit discharges, improper disposal of waste, and pollution prevention practices. The training will include discussions on ways to manage activities to prevent substantial quantities of chemicals and water from entering the Town's stormwater conveyance system. Appropriate Town staff will be trained beginning in 2005 and periodic refresher sessions will be conducted at least annually. The Town will document training opportunities provided and attendees. Training will emphasize how substantial quantities of chemicals and water can lead to elevated levels of nutrients and toxins in receiving waters. Additional topics will include proper storage and disposal of hazardous wastes, vegetative waste handling, fertilizer and pesticide application, and the function of Town operated and maintained BMPs. The number of trainings, number of staff attending trainings, and information presented will be tracked and reported in Town's annual SWQMP reports.

This training will be incorporated into the Town's existing weekly *Lets Talk Safety* training program attended by Westfield PWD field and maintenance employees. The *Lets Talk Safety* program is a training program developed by the American Water Works Association that is designed to be used as a weekly communication and training tool for utility employees. The 52 week training program includes discussions on many subjects including chemical hazards.

#### Fertilizer and Pesticide Management

In order to minimize the impacts that fertilizers and pesticides have on stormwater quality runoff, all Town staff utilizing fertilizers and pesticides will be required to attend an annual training session on the proper handling, mixing, use, and storage of fertilizers and pesticides. The Town will ensure that they are complying with all applicable requirements as identified by the Office of the State Chemists (OISC). The Town will document that any and all contractors are complying with all applicable requirements of the Office of the State Chemist. The Town will document all activities associated with fertilizer and pesticide management including the areas within the MS4 area on which herbicides are utilized and the amount of each material utilized on an annual basis. All information specific to fertilizer and pesticide management will be included in the Town's annual SWQMP report.

#### Flood Management Projects

Although the Town currently does not operate or maintain any existing flood management projects. All future Town owned flood management projects will be assessed for their impacts on stormwater quality. Pre-construction BMPs will be used for new projects, to reduce pollutant associated with stormwater runoff. This preliminary review will better use limited resources to plan for water quality BMPs before a project is constructed since water quality and water quantity issues are interrelated.

#### **Canine Park Location**

Pet waste has been shown to be a major contributor of stormwater pollution. Currently, the Town does not own or operate any Canine Parks. In the event that a Canine Park is constructed, the Town will require the park of be sited at least one hundred fifty (150) feet away from a receiving water. The Town will track the number and location of canine parks sited at least one hundred fifty (150) feet away from a surface waterbody.

Table 8-2
Pollution Prevention and Good Housekeeping BMPs

Doot				
Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
MS4 Conveyance System Maintenance Plan and Documentation	Develop a storm sewer system maintenance schedule and track activities to document the amount of pollution that has been kept from local receiving waters as a result of the Town's stormwater program.	February 2005, then ongoing.	<ul> <li>Document the amount of litter picked up as a result of periodic litter pickup events.</li> <li>Document the amount of materials removed from the Town's storm sewer system and how that material is disposed of.</li> <li>Document the total amount of material collected and number of curb miles swept by the Town's Street Sweeping Program.</li> <li>Document all improvements made to roadside shoulders and ditches.</li> <li>Document all improvements made to stormwater outfalls.</li> <li>Track using Programmatic Indicators #23, #24, #25, #27, #28, #29, #30, #31, #32, and #33</li> </ul>	Westfield PWD
Secondary Containment	<ul> <li>Implement secondary containment devices around areas of chemical storage.</li> </ul>	Begin in 2005, then on-going.	<ul> <li>Document the number of devices installed, the location of installed devices, and the amount of material collected or contained by the secondary containment devices.</li> </ul>	Westfield PWD

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Sand and Salt Storage	Conduct regular maintenance and sweeping around salt and sand storage and loading areas.	Beginning in 2005, then ongoing.	<ul> <li>Track using Programmatic Indicators #24 and #32.</li> <li>Document all containment and maintenance BMPs implemented.</li> <li>Document the amount of salt and sand applied to Town roads on an annual basis.</li> <li>Track using Programmatic Indicator #30 and #31.</li> </ul>	Westfield PWD
Chemical Spill Response Plan	Implement Spill Response Plan by November 2005 to minimize the potential for chemical spills to contaminate stormwater runoff.	November 2005.	<ul> <li>Document all facilities where the response plan is posted and number of staff trained in proper spill response techniques.</li> <li>Track using Programmatic Indicator #24.</li> </ul>	Westfield PWD
Wash Water Management	Ensure that vehicle     wash waters are routed     through appropriate     BMPs prior to     accessing the storm     sewer system.	Beginning in 2005, then ongoing.	Document that all vehicle and equipment washing is conducted in areas without direct access to the Town's storm sewer system.	Westfield PWD Police Department Fire Department



Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Disposal of Waste	Develop and begin implementing procedures to ensure the proper disposal of waste by November 2005.	2005	<ul> <li>Document all activities associated with waste disposal including the types of waste generated, the amount of waste generated, and the method by which the waste was disposed.</li> <li>Track using Programmatic Indicator #32.</li> </ul>	Westfield PWD
Street Sweeping Program	<ul> <li>Begin tracking street sweeping activities in 2005.</li> </ul>	Beginning 2005, then ongoing.	<ul> <li>Document the number of curb miles swept and the weight of material collected via the Town's Street Sweeping Program.</li> <li>Track using Programmatic Indicator #33.</li> </ul>	Westfield PWD
Snow Disposal Areas	Dispose of snow in designated areas to minimize runoff from snowmelt.	Beginning 2005, then on-going.	N/A	Westfield PWD

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Annual IDDE, Good Housekeeping, & Pollution Prevention Staff Training	Develop and implement an annual IDDE and Good Housekeeping training program by November 2005.	Trainings held in 2005, then annual updates.	<ul> <li>Document number of staff trained, number of training events held, and the curriculum covered in each training session.</li> <li>Track using Programmatic Indicator #2 and #3.</li> </ul>	Westfield PWD
Fertilizer and Pesticide Management	Train appropriate staff on appropriate use of fertilizers and pesticides.	Beginning 2005, then ongoing.	<ul> <li>Document all trainings conducted.</li> <li>Document that contractors have appropriate certifications through the OISC.</li> <li>Track using Programmatic Indicator #25.</li> </ul>	Westfield PWD

Best Management Practice (BMP)	Measurable Goals	Timeline	Documentation and Tracking	Responsible Party
Flood Management Projects	Document that all new flood management projects are assessed for incorporation of additional water quality devices or practices.	Future Flood Management Projects.	N/A	Westfield PWD
Canine Park Location	If and when applicable, the Town will track the number and location of canine parks sited at least one hundred fifty (150) feet away from a surface waterbody.	If and when necessary.	Track using Programmatic Indicator #34.	Westfield PWD

#### 9.0 MS4 PROGRAM COSTS

Rule 13 requires a summary of the current storm water budget, expected or actual funding sources, and a projection of the budget for each year within the five (5) year permit term. Resources used for developing and implementing the storm water program should be documented in order to demonstrate that monies, equipment, and staff are being and will be utilized for the program.

The overall fiscal impact of the requirement of Rule 13 may be grouped under three categories: SWQMP Development costs, Part C Implementation costs, and "other" compliance costs. This chapter details the cost of plan implementation (Part C) and it includes the additional expense for developing the SWQMP, continuous characterization, and data reporting. In the numbers detailed below, no monetary value is placed on volunteer hours.

#### 9.1 SWQMP DEVELOPMENT COSTS

The development of the SWQMP must be completed by the end of the first year of the permit term. Tasks include completion of a Stormwater Phase II Needs Assessment and Feasibility Study, Notice of Intent (NOI), and Part A, Part B, and Part C (this document) of the SWQMP.

NOI and Part A and Stormwater Phase II Needs Analysis and Feasibility Study: The costs associated with completion of the NOI and Part A are mainly organizational and administrative. An initial list of known receiving waters was compiled. Public Notice was published in the local newspaper. Preliminary estimates of existing and expected budgets had to be included, and an MS4 Operator was identified. In addition to these costs, the Town hired a consulting firm to conduct an analysis of their needs for complying with requirements of Stormwater Phase II. The total cost of that study was \$7.000.

<u>Part B Baseline Characterization:</u> Part B involved the collection and assessment of existing data for the receiving waters identified in Part A. This data was then used to characterize the baseline water quality conditions in the MS4 area, identify sensitive areas, and guide the development of Part C. Existing BMPs had to be identified and their effectiveness evaluated. The tasks associated with Part B were research, analysis, and report writing. Total costs associated with completing the Part B report was \$10,000.

<u>Development of the Part C Implementation Plan:</u> The cost associated with developing a SWQMP Part C: Implementation Plan is \$15,000. This total includes fees for engineering consultants, but does not include time and materials contributed by Town staff. Dozens of meetings and discussions were held by representatives of Hamilton County Stormwater Phase II communities in order to ensure that all communities and their respective departments were aware of the impact that the new Phase II requirements would have on them.



#### 9.2 DETAILED PART C IMPLEMENTATION COSTS BY MCM OVER 2005-2008

This section details the cost of implementing the program described in this document. There are 6 MCMs within the implementation plan. Costs for each individual MCM are summarized below. Since different plan elements have different start-up timelines, costs are also broken down by permit year, February - January.

MCM #1 Public Education and Outreach: The cost to implement this MCM throughout the first 5-year permit term is estimated to be \$24,000. Most of the implementation deadlines for this MCM are in the second permit year (2005). The annual average costs for this MCM is estimated to be \$6,000. These costs will cover such tasks as reproduction and distribution of educational brochures, webpage development and maintenance, and other BMP as outlined in Chapter 3.

MCM #2 Public Participation and Involvement: The cost to implement MCM #2 throughout the first 5-year permit term is estimated to be \$8,000. Most of the implementation deadlines for this MCM are in the second permit year. The annual average costs for this MCM is estimated to be \$2,000. This cost will cover the implementation of tasks such as promoting Clean-Up Events, implementing Storm Drain Marking programs, participating in the Hamilton County Phase II Public Education Committee and implementing various BMPs as outlined in Chapter 4.

MCM #3 Illicit Discharge Detection and Elimination: The cost to implement MCM #3 throughout the first 5-year permit term is estimated to be \$218,000. The implementation deadlines for this MCM occur mainly in the second permit year, with some start-up costs beginning in the first permit year. Annual costs associated with this MCM are estimated to be \$3,000 for the first year (2004), \$56,000 for permit year 2 (2005), and \$53,000 per year for permit years three (2006) through 5 (2008). The costs are primarily associated with developing a comprehensive storm sewer system map, conducting dry weather screening events, and identifying and eliminating illicit discharges to the storm sewer system. Costs are also associated with the hiring of an additional GIS Technician who will assist the Town with the development of their storm sewer system map. The additional expense identified in year two is associated with providing training to Town staff responsible for conducting dry weather screening.

MCM #4 Construction Site Runoff Control: The cost to implement MCM #4 throughout the first 5-year permit term is estimated to be \$185,500. The implementation deadlines for this MCM occur mainly in the second permit year, with some preparation work beginning in the first permit year. Annual costs for this MCM are estimated be \$1,500 for the first year, and \$46,000 per year for permit years two (2005) through five (2008). These costs are associated with the development of an erosion and sediment control ordinance and a plan review and inspection program. However, the bulk of these costs are associated with the hiring of additional plan review and inspection staff by the Public Works Department. The Public Works Department is currently looking to hire a professional engineer and a new construction inspector. Additional costs are associated with ensuring that appropriate Town staff receive annual training on

Construction and Post-Construction BMP technologies. The Town will likely pass many if not all of the costs associated with this MCM along to the development community.

MCM #5 Post-Construction Stormwater Management: The cost to implement MCM #5 throughout the first 5-year permit term is estimated to be \$105,500. The implementation deadlines for this MCM occur mainly in the second permit year, with some preparation work beginning in the first permit year. Annual costs for this MCM are estimated to be \$1,500 for the first year (2004), and \$26,000 per year for permit years two (2005) through five (2008). These costs are associated with the development of an ordinance for post-construction stormwater quality management and a plan review and inspection program, as well as providing training for plan reviewers and site inspectors.

MCM #6 Pollution Prevention and Good Housekeeping: The cost to implement MCM #6 throughout the first 5-year permit term is estimated to be \$344,000. The implementation deadlines for this MCM are entirely delayed until after the first permit year. Average annual costs associated with this MCM are estimated to be \$86,000 per year for permit years two (2005) through five (2008). These costs are associated with the implementation of Salt and Sand Storage BMPs, developing an MS4 Conveyance System Maintenance Plan, providing training to the Town maintenance and field staff, and conducting storm sewer system maintenance. This annual total includes an estimated \$50,000 that the Town currently spends on conducting storm sewer maintenance, and therefore, does not represent new spending by the Town.

#### 9.3 OTHER COMPLIANCE COSTS 2005 - 2008

Beyond development and implementation of the SWQMP, Rule 13 requires ongoing MS4 area receiving water characterization, monthly and annual status reports, and renewal of permit application at the end of the 5 year permit term.

Ongoing Characterization: Rule 13 requires regulated communities to continue collecting and evaluating data on water quality throughout the permit life. The cost for this ongoing characterization is estimated to cost the Town \$10,000 dollars per year. This funding will allow the Town to continue to collect and evaluate various land use and water quality data relative to the Town's receiving waters. The Town will primarily rely on data collected by the IDEM and DNR, but will also rely on data collected by other local groups. If data and reports suggest that water quality problems are associated with the Town's stormwater discharges, the Town will review their SWQMP and where necessary make amendments to address those problems.

<u>Status Reporting:</u> Much of the data collection and data management cost of this task is absorbed by the implementation of the MCMs. The estimated cost to compile and organize the volume of data that will be generated is \$10,000 dollars per year. For each annual report, some additional time and effort will be needed to evaluate the effectiveness of the plan and to determine if adjustments are needed to the BMPs and/or measurable goals.

Ongoing Technical Assistance: Throughout the term of the permit, the Town may require assistance in the form of professional engineering services in order to address tasks associated with NPDES Phase II compliance issues. These tasks may include, but are not limited to, BMP evaluation, MS4 conveyance mapping, plan reviews, inspections, training modules, ordinances, and coordination with IDEM. The cost for ongoing technical assistance is estimated to be \$15,000 per year.

<u>Permit Application Renewal:</u> At the end of this five-year permit term, the Town will need to evaluate the effectiveness of their plan. Additional BMPs can be added and ineffective BMPs can be dropped. It is expected that the level of effort needed to complete the evaluation of the existing program, make changes, and submit a permit renewal application to IDEM will be similar to the effort required for the original Part C application. Therefore, the estimated cost to prepare the permit renewal application is \$25,000.

#### 9.4 TOTAL SWQMP PROGRAM COSTS 2004 - 2008

**Table 9-1** summarizes total program costs, which includes the costs for all tasks described above in Sections 9.1, 9.2, and 9.3. The total estimated cost of compliance with Rule 13 is \$1.08 million for the first 5-year permit term.

Table 9-1
Total Program Cost

			gram oost			
	2003-Jan.	Feb. 2005-	Feb. 2006-	Feb. 2007-	Feb. 2008-	Total
	2004	Jan. 2005	Jan. 2006	Jan. 2007	Jan. 2008	
NOI and SWQMP						
Part A and Needs						
Assessment	\$7,000					\$7,000
SWQMP Part B	\$10,000					\$10,000
SWQMP Part C						
(development)	\$15,000					\$15,000
Implement MCM1	N/A	\$6,000	\$6,000	\$6,000	\$6,000	\$24,000
Implement MCM2	N/A	\$2,000	\$2,000	\$2,000	\$2,000	\$8,000
Implement MCM3	\$3,000	\$56,000	\$53,000	\$53,000	\$53,000	\$218,000
Implement MCM4	\$1,500	\$46,000	\$46,000	\$46,000	\$46,000	\$185,500
Implement MCM5	\$1,500	\$26,000	\$26,000	\$26,000	\$26,000	\$105,500
Implement MCM6	N/A	\$86,000	\$86,000	\$86,000	\$86,000	\$344,000
Ongoing						
Characterization	N/A	\$10,000	\$10,000	\$10,000	\$10,000	\$40,000
Annual Report	N/A	\$10,000	\$10,000	\$10,000	\$10,000	\$40,000
Ongoing						
Technical						
Assistance		\$15,000	\$15,000	\$15,000	\$15,000	\$60,000
Permit Renewal	N/A				\$25,000	\$25,000
Total	\$38,000	\$257,000	\$254,000	\$254,000	\$279,000	\$1,082,000

#### 9.5 BUDGETARY NEEDS

Some of the activities, programs, and tasks required by Rule 13 are already being fulfilled by the Town. For instance, the Town is currently conducting a storm sewer maintenance on an as needed basis, is conducting street sweeping, and has the capabilities to develop a stormwater website. In the future the Town will likely maintain adequate plan review and inspection staffing levels by adjusting plan review and/or inspection fees to cover costs associated with such staff. Therefore, in order to achieve compliance with Rule 13, approximately \$540,000 must be generated over the next four years. In order to cover these costs, the Town will likely utilize its General Fund, and will consider implementing a stormwater utility or user fee.

#### 10.0 SUMMARY

Implementation of Town of Westfield's Rule 13 required stormwater quality program will improve the overall quality of stormwater discharges entering into the Town's separate storm sewer system. In order to successfully implement the Rule 13 program, the Town must pay attention to reporting requirements contained in the Programmatic Indicators, adhere to mandated time lines, and be aware of next steps beyond the Part C document.

#### 10.1 PROGRAMMATIC INDICATORS

As a visual aid to Town of Westfield and to help evaluate Rule 13 permit compliance, **Table 10-1** lists the Programmatic Indicators that are required in Rule 13. The table further identifies those required and chosen BMPs that will fulfill these required Programmatic Indicators.

Table 10-1 Programmatic Indicators

Program matic Indicator	Description	ВМР
1	Number or percentage of citizens, segregated by type of constituent that have an awareness of storm water quality issues.	<ul> <li>Hamilton County Phase II Public Education Steering Committee</li> <li>Public Meetings</li> <li>Stormwater Survey</li> <li>Stormwater Brochures</li> <li>Stormwater Newsletters</li> <li>Stormwater Website</li> <li>SWCD Activities</li> <li>SWCD Promotions</li> <li>Storm Drain Marking</li> <li>Clean-Up Events</li> <li>Rule 13 Public Participation Lists</li> <li>Mass Media Solicitation</li> </ul>
2	Number and description of meetings, training sessions, and events conducted to involve citizen constituents in the storm water program.	<ul> <li>Hamilton County Phase II Public Education Committee</li> <li>Public Meetings</li> <li>Stormwater Survey</li> <li>Storm Drain Marking</li> <li>SWMD Promotions</li> <li>SWCD Activities</li> <li>Clean-Up Events</li> <li>Rule 13 Public Participation Lists</li> </ul>

		T
		<ul> <li>Training for Construction Professionals</li> <li>Concerns From Citizens</li> <li>Annual IDDE, Good Housekeeping &amp; Pollution Prevention Training</li> <li>ESC and Post-Construction Staff Training</li> </ul>
3	Number or percentage of citizen constituents that participate in storm water quality improvement programs.	<ul> <li>Public Meetings</li> <li>Storm Drain Marking</li> <li>SWMD Promotions</li> <li>SWCD Activities</li> <li>Clean-Up Events</li> <li>Rule 13 Public Participation Lists</li> <li>Concern From Citizens</li> <li>ESC and Post-Construction Staff Training</li> <li>Annual IDDE, Good Housekeeping &amp; Pollution Prevention Training</li> </ul>
4	Number and location of storm drains marked or cast, segregated by marking method.	Storm Drain Marking
5	Estimated or actual linear feet or percentage of MS4 mapped and indicated on an MS4 area map.	Stormwater System Map
6	Number and location of MS4 area outfalls mapped.	Stormwater System Map
7	Number and location of MS4 area outfalls screened for illicit discharges.	<ul> <li>Illicit Discharge Detection and Elimination Plan</li> <li>Illicit Discharge Detection and Elimination Ordinance</li> </ul>
8	Number and location of illicit discharges detected.	<ul> <li>Illicit Discharge Detection and Elimination Plan</li> <li>Illicit Discharge Detection and Elimination Ordinance</li> </ul>
9	Number and location of illicit discharges eliminated.	<ul> <li>Illicit Discharge Detection and Elimination Plan</li> <li>Illicit Discharge Detection and Elimination Ordinance</li> </ul>

10	Number of and estimated or actual amount of material, segregated by type, collected from HHW collections in the MS4 area.	Solid Waste Management District Promotions
11	Number and location of constituent drop-off centers for automotive fluid recycling.	Solid Waste Management District Promotions
12	Number or percentage of constituents that participate in the HHW collections.	Solid Waste Management District Promotions
13	Number of construction sites obtaining an MS4 entity-issued storm water run-off permit in the MS4 area.	Erosion and Sediment Control and Post- Construction BMP Tracking Database
14	Number of construction sites inspected.	Erosion and Sediment Control and Post- Construction BMP Tracking Database
15	Number and type of enforcement actions taken against construction site operators.	<ul> <li>Erosion and Sediment Control and Post- Construction BMP Tracking Database</li> <li>Concerns from Citizens</li> </ul>
16	Number of, and associated construction site name and location for, public informational requests received.	<ul> <li>Erosion and Sediment Control and Post- Construction BMP Tracking Database</li> <li>Concerns From Citizens</li> </ul>
17	Number, type, and location of structural BMPs installed.	Erosion and Sediment Control and Post- Construction BMP Tracking Database
18	Number, type, and location of structural BMPs inspected.	Erosion and Sediment Control and Post- Construction BMP Tracking Database
19	Number, type, and location of structural BMPs maintained or improved to function properly.	<ul> <li>Erosion and Sediment Control and Post- Construction BMP Tracking Database</li> <li>Post-Construction BMP O&amp;M Plan</li> </ul>
20	Type and location of nonstructural BMPs utilized.	Erosion and Sediment Control and Post- Construction BMP Tracking Database

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21	Estimated or actual acreage or square footage of open space preserved and mapped in the MS4 area, if applicable.	Erosion and Sediment Control and Post- Construction BMP Tracking Database
22	Estimated or actual acreage or square footage of pervious and impervious surfaces mapped in the MS4 area, if applicable.	N/A – The Town is not currently able to track this indicator.
23	Number and location of new retail gasoline outlets or municipal, state, federal, or institutional refueling areas, or outlets or refueling areas that replaced existing tank systems that have installed storm water BMPs.	MS4 Conveyance System Maintenance Plan and Documentation
24	Number and location of MS4 entity facilities that have containment for accidental releases of stored polluting materials.	<ul> <li>MS4 Conveyance System Maintenance Plan and Documentation</li> <li>Secondary Containment</li> <li>Oil and Water Separator Maintenance</li> <li>Chemical Spill Response Plan</li> </ul>
25	Estimated or actual acreage or square footage, amount, and location where pesticides and fertilizers are applied by a regulated MS4 entity to places where storm water can be exposed within the MS4 area.	<ul> <li>Fertilizer and Pesticide Management Plan</li> <li>MS4 Conveyance System Maintenance Plan and Documentation</li> </ul>
26	Estimated or actual linear feet or percentage and location of unvegetated swales and ditches that have an appropriately-sized vegetated filter strip.	N/A-The Town is not currently able to track this indicator.
27	Estimated or actual linear feet or percentage and location of MS4 conveyances cleaned or repaired.	MS4 Conveyance System Maintenance Plan and Documentation

28	Estimated or actual linear feet or percentage and location of roadside shoulders and ditches stabilized, if applicable.	MS4 Conveyance System Maintenance Plan and Documentation
29	Number and location of storm water outfall areas remediated from scouring conditions, if applicable.	MS4 Conveyance System Maintenance Plan and Documentation
30	Number and location of deicing salt and sand storage areas covered or otherwise improved to minimize storm water exposure.	<ul> <li>Salt and Sand Management</li> <li>MS4 Conveyance System Maintenance Plan and Documentation</li> </ul>
31	Estimated or actual amount, in tons, of salt and sand used for snow and ice control.	<ul> <li>Salt and Sand Storage</li> <li>MS4 Conveyance System Maintenance Plan</li> </ul>
32	Estimated or actual amount of material by weight collected from catch basin, trash rack, or other structural BMP cleaning.	MS4 Conveyance System Maintenance Plan
33	Estimated or actual amount of material by weight collected from street sweeping, if utilized.	<ul> <li>Street Sweeping Program</li> <li>MS4 Conveyance System Maintenance Plan</li> </ul>
34	If applicable, number or percentage and location of canine parks sited at least one hundred fifty (150) feet away from a surface waterbody.	Canine Park Location

10.2 Master Timeline
The following Master Time outlines all BMPs that have been and will be completed by the Town of Westfield during their first five year permit term.

Permit Year	МСМ	ВМР	
	1	• N/A	
	2	• N/A	
2004	3	Illicit Discharge Detection & Elimination (IDDE) Ordinance Development	
	4	Erosion & Sediment Control (ESC) Ordinance Development	
	5	Post-Construction Control Ordinance Development	
	6	• N/A	
2005	1	<ul> <li>Hamilton County Phase II Public Education Steering Committee</li> <li>Public Meetings</li> <li>Stormwater Survey</li> <li>Stormwater Brochures</li> <li>Newsletter Articles</li> <li>Solid Waste Management District Promotions</li> <li>Website</li> <li>Soil and Water Conservation District (SWCD) Activities</li> <li>Mass Media Solicitation</li> </ul>	
	2	<ul> <li>Hamilton County Phase II Public Education Steering Committee</li> <li>Storm Drain Marking</li> <li>Clean-Up Events</li> <li>Solid Waste Management District Promotions</li> <li>Soil and Water Conservation District (SWCD) Activities</li> <li>Rule 13 Public Participation Lists</li> <li>Concerns from Citizens Report/Report-A-Pollluter</li> </ul>	
	3	<ul> <li>Stormwater System Map</li> <li>Illicit Discharge Detection and Elimination Ordinance</li> <li>Illicit Discharge Detection and Elimination Plan</li> <li>Concerns from Citizens Report/Report-A-Polluter</li> <li>Storm Drain Marking</li> <li>Solid Waste Management District Promotions</li> <li>Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training</li> </ul>	

		F : 10 E (0 ( 10 E
		Erosion and Sediment Control Ordinance
		Plan Review, Site Inspection, and Enforcement
		Staff Training
		<ul> <li>Erosion and Sediment Control and Post-Construction BMP</li> </ul>
	4	Tracking Database
		Training for Construction Profession
		Procedure for Prioritizing Construction Activities
		Inspection and Enforcement Documentation
		Quality Assurance/Quality Control (QA/QC) of overall program
		Post-Construction Control Ordinance
		Plan Review, Site Inspection, and Enforcement  Chaff Training
		Staff Training
	5	Inspection and Enforcement Documentation
		Post-Construction BMP Operation and Maintenance Plan
		Erosion and Sediment Control and Post-Construction BMP
		Tracking Database
		Training for Construction Professionals
		MS4 Conveyance System Maintenance Plan and Documentation
		Secondary Containment
		Salt and Sand Management
		Chemical Spill Response
		Wash Water Management
	6	Waste Disposal     Street Sweeping Program
		Street Sweeping Program
		Snow Disposal Areas
		Annual IDDE, Good Housekeeping, and Pollution Prevention Staff
		Training
		Fertilizer and Pesticide Management
		Flood Management Projects
		Canine Park Location
		Hamilton County Phase II Public Education Steering Committee
		Public Meetings
		Stormwater Survey
		Stormwater Brochures
2006	1	Newsletter Articles
	·	Solid Waste Management District Promotions
		Website
		<ul> <li>Soil and Water Conservation District (SWCD) Activities</li> </ul>
		Mass Media Solicitation
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2	<ul> <li>Hamilton County Phase II Public Education Committee</li> <li>Storm Drain Marking</li> <li>Clean-Up Events</li> <li>Solid Waste Management District Promotions</li> <li>Soil and Water Conservation District (SWCD) Activities</li> <li>Rule 13 Public Participation Lists</li> <li>Concerns from Citizens Report/Report-A-Polluter</li> </ul>
3	<ul> <li>Stormwater System Map</li> <li>Illicit Discharge Detection and Elimination Ordinance</li> <li>Illicit Discharge Detection and Elimination Plan</li> <li>Concerns from Citizens Report/Report-A-Polluter</li> <li>Storm Drain Marking</li> <li>Solid Waste Management District Promotions</li> <li>Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training</li> </ul>
4	<ul> <li>Erosion and Sediment Control Ordinance</li> <li>Plan Review, Site Inspection, and Enforcement</li> <li>Staff Training</li> <li>Erosion and Sediment Control and Post-Construction BMP Tracking Database</li> <li>Training for Construction Profession</li> <li>Procedure for Prioritizing Construction Activities</li> <li>Inspection and Enforcement Documentation</li> <li>Quality Assurance/Quality Control (QA/QC) of overall program</li> </ul>
5	<ul> <li>Post-Construction Control Ordinance</li> <li>Plan Review, Site Inspection, and Enforcement</li> <li>Staff Training</li> <li>Inspection and Enforcement Documentation</li> <li>Post-Construction BMP Operation and Maintenance Plan</li> <li>Erosion and Sediment Control and Post-Construction BMP Tracking Database</li> <li>Training for Construction Professionals</li> </ul>

	6	<ul> <li>MS4 Conveyance System Maintenance Plan and Documentation</li> <li>Secondary Containment</li> <li>Salt and Sand Management</li> <li>Chemical Spill Response</li> <li>Wash Water Management</li> <li>Waste Disposal</li> <li>Street Sweeping Program</li> <li>Snow Disposal Areas</li> <li>Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training</li> <li>Fertilizer and Pesticide Management</li> <li>Flood Management Projects</li> <li>Canine Park Location</li> </ul>
2007	1	<ul> <li>Hamilton County Phase II Public Education Steering Committee</li> <li>Public Meetings</li> <li>Stormwater Survey</li> <li>Stormwater Brochures</li> <li>Newsletter Articles</li> <li>Solid Waste Management District Promotions</li> <li>Website</li> <li>Soil and Water Conservation District (SWCD) Activities</li> <li>Mass Media Solicitation</li> </ul>
	2	<ul> <li>Hamilton County Phase II Public Education Committee</li> <li>Storm Drain Marking</li> <li>Clean-Up Events</li> <li>Solid Waste Management District Promotions</li> <li>Soil and Water Conservation District (SWCD) Activities</li> <li>Rule 13 Public Participation Lists</li> <li>Concerns from Citizens Report/Report-A-Polluter</li> </ul>
	3	<ul> <li>Stormwater System Map</li> <li>Illicit Discharge Detection and Elimination Ordinance</li> <li>Illicit Discharge Detection and Elimination Plan</li> <li>Concerns from Citizens Report/Report-A-Polluter</li> <li>Storm Drain Marking</li> <li>Solid Waste Management District Promotions</li> <li>Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training</li> </ul>

		F : 10 " (0 (10 "
		Erosion and Sediment Control Ordinance
		Plan Review, Site Inspection, and Enforcement
		Staff Training
		Erosion and Sediment Control and Post-Construction BMP
	4	Tracking Database
		Training for Construction Profession
		Procedure for Prioritizing Construction Activities
		Inspection and Enforcement Documentation
		Quality Assurance/Quality Control (QA/QC) of overall program
		Post-Construction Control Ordinance
		Plan Review, Site Inspection, and Enforcement Observations
		Staff Training
	5	Inspection and Enforcement Documentation
		Post-Construction BMP Operation and Maintenance Plan
		Erosion and Sediment Control and Post-Construction BMP
		Tracking Database
		Training for Construction Professionals
		MS4 Conveyance System Maintenance Plan and Documentation
		Secondary Containment
		Salt and Sand Management
<u>i</u> l		Chemical Spill Response
		Wash Water Management
		Wash Water Management     Waste Disposal
	6	·
		Street Sweeping Program     Share Signature Share
		Snow Disposal Areas  And JRDE Condition of the Properties Class
		Annual IDDE, Good Housekeeping, and Pollution Prevention Staff  Transitions
		Training
		Fertilizer and Pesticide Management
		Flood Management Projects
		Canine Park Location
		Hamilton County Phase II Public Education Steering Committee
		Public Meetings
		Stormwater Survey
		Stormwater Brochures
2008	1	Newsletter Articles
		Solid Waste Management District Promotions
		Website
		Soil and Water Conservation District (SWCD) Activities
		Mass Media Solicitation
		• Iviass ividua suiicitatiuri

2	<ul> <li>Hamilton County Phase II Public Education Committee</li> <li>Stormwater Drain Marking</li> <li>Clean-Up Events</li> <li>Solid Waste Management District Promotions</li> <li>Soil and Water Conservation District (SWCD) Activities</li> <li>Rule 13 Public Participation Lists</li> <li>Concerns from Citizens Report/Report-A-Polluter</li> </ul>
3	<ul> <li>Stormwater System Map</li> <li>Illicit Discharge Detection and Elimination Ordinance</li> <li>Illicit Discharge Detection and Elimination Plan</li> <li>Concerns from Citizens Report/Report-A-Polluter</li> <li>Storm Drain Marking</li> <li>Solid Waste Management District Promotions</li> <li>Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training</li> </ul>
4	<ul> <li>Erosion and Sediment Control Ordinance</li> <li>Plan Review, Site Inspection, and Enforcement</li> <li>Staff Training</li> <li>Erosion and Sediment Control and Post-Construction BMP Tracking Database</li> <li>Training for Construction Professionals</li> <li>Procedure for Prioritizing Construction Activities</li> <li>Inspection and Enforcement Documentation</li> <li>Quality Assurance/Quality Control (QA/QC) of overall program</li> </ul>
5	<ul> <li>Post-Construction Control Ordinance</li> <li>Plan Review, Site Inspection, and Enforcement</li> <li>Staff Training</li> <li>Inspection and Enforcement Documentation</li> <li>Post-Construction BMP Operation and Maintenance Plan</li> <li>Erosion and Sediment Control and Post-Construction BMP Tracking Database</li> <li>Training for Construction Professionals</li> </ul>

6	<ul> <li>MS4 Conveyance System Maintenance Plan and Documentation</li> <li>Secondary Containment</li> <li>Salt and Sand Management</li> <li>Chemical Spill Response</li> <li>Wash Water Management</li> <li>Waste Disposal</li> <li>Street Sweeping Program</li> <li>Snow Disposal Areas</li> <li>Annual IDDE, Good Housekeeping, and Pollution Prevention Staff Training</li> <li>Fertilizer and Pesticide Management</li> <li>Flood Management Projects</li> <li>Canine Park Location</li> </ul>
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### 10.3 Next Steps

As progress is made in implementing Town of Westfield's Storm Water Quality Management Plan, elements contained in required annual program reports, monthly construction reports, and on-going water quality characterizations will need to be tracked. Rule 13 does provide program flexibility in that if a BMP proves to be ineffective or infeasible, then Town of Westfield may change their program and incorporate a different BMP.

#### **Annual Reports**

Starting in February 2006, Town of Westfield must submit annual reports to IDEM on their Rule 13 permit program. In subsequent permit terms, reports must be submitted only in years two and four.

### Annual Reports must include:

- Progress towards development, implementation, and enforcement of all MCMs, including updated Programmatic Indicator data;
- A summary of complaints received and follow-up investigation results related to storm water quality issues;
- Updated measurable goals:
- Storm water BMPs installed or initiated;
- Follow-up or additional water quality characterization information:
- An updated active industrial facilities list;
- Implementation problems encountered, including BMP changes due to ineffectiveness or infeasibility;
- Funding sources and expenditures;
- Changes to MS4 area boundaries, including land areas added to the MS4 area via annexation or other similar means;
- Identified storm water quality improvement projects; and
- Updated receiving water information.



### **Monthly Construction Site Activity Reports**

The Town of Westfield must submit monthly construction site project summary reports no later than the last day of the following month to IDEM. If no projects occur within a given month, a report does not need to be submitted. Reports must include those projects for which there has been a new permit application or termination notice and must contain:

- A list of all construction and post-construction project site names;
- Project site addresses;
- Project site construction duration timeframes; and
- An indication of enforcement actions undertaken.

### **Agency Inspections**

To evaluate Rule 13 permit compliance, IDEM and/or IDNR staff may periodically inspect the Town of Westfield and review its stormwater program. The MS4 Operator should be prepared to answer questions and provide documentation of program elements. The point of contact for such inspections will be the Westfield PWD Director. The MS4 Operator may call upon responsible entities identified in the BMP tables for assistance in such inspections. IDEM may request data to facilitate the identification or qualification of pollutants that may be released to the environment from an MS4 conveyance or to determine effectiveness of the MCMs.

### **On-going Water Quality Characterization**

As new water quality information becomes available and updates are made to data sources that were reviewed as part of the Town's SWQMP – Part B: Baseline Water Quality Report, the Town of Westfield will review that information and if necessary adjust their Rule 13 program accordingly. For example, when IDEM publishes the "2006 303(d) List of Impaired Waterbodies" and/or generates an updated 305(b) Basin Water Quality Report for 2006. The Indiana Water Quality 305(b) Report is submitted to USEPA in even-numbered years. A more informal update is prepared in odd-numbered years. As reports such as this become available, the Town can review this information and compare it to their SWQMP Part C. If different areas are identified as needing additional measures, then the Town may adjust its priorities for program implementation or adjust or add program elements to address newly identified concerns.

### **Rule 13 Permit Renewal**

Permit renewal applications are due at least sixty days prior to the expiration date for the Rule 13 permit. The Town of Westfield's renewal will likely be due on November 5, 2008. Permit coverage under the renewal NOI will begin on the date of expiration from the previous five year permit term. IDEM may reissue permits on a watershed basis, which may change these dates. Subsequent permits will require the Town of Westfield to maintain and, where possible, improve their performance in implementing the six MCMs.

### Appendix A

### **REFERENCES**

- Christopher B. Burke Engineering, Ltd. NPDES Phase II General Permit Application, Storm Water Quality Management Plan, Part B: Baseline Characterization Report, Town of Westfield, Indiana. May 2004.
- Indiana Department of Environmental Management. 327 IAC 15-13 Final Rule. August 2003.
- Indiana Department of Environmental Management. Rule 13 Guidance Document. May 2003.
- U.S. EPA Office of Water. Storm Water Phase II Compliance Assistance Guide. March 2000.
- U.S. EPA Office of Water, Storm Water Phase II Final Rule. January 2000.

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### Appendix B

### **GLOSSARY OF TERMS**

Although all of the acronyms and definitions listed below may have not been used in this document, the additional terminology is provided to assist the user of the document in understanding technical terminology associated with IDEM Rule 13 and NPDES Phase II regulations.

### **ACRONYMS**

**ASTM** American Society of Testing and Materials

**BMP** Best Management Practice

**CBBEL** Christopher B. Burke Engineering, Ltd.

**COE** United States Army Corps of Engineers

**CWA** Clean Water Act

**EPA** Environmental Protection Agency

**FCA** Fish Consumption Advisory

**FEMA** Federal Emergency Management Agency

**GIS** Geographical Information System

**GPS** Global Positioning System

**HHW** Household Hazardous Waste

**IDDE** Illicit Discharge Detection and Elimination

**IDEM** Indiana Department of Environmental Management

**IDNR** Indiana Department of Natural Resources

MCM Minimum Control Measure

MS4 Municipal Separate Storm Sewers

**NOI** Notice of Intent

**NPDES** National Pollution Discharge Elimination System

**O&M** Operation and Maintenance



**POTW** Publicly Owned Treatment Works

**Qwq** Water Quality Discharge

**SWCD** Soil and Water Conservation District

**SWMD** Solid Waste Management District

**SWQMP** Storm Water Quality Management Plan

**WQv** Water Quality Volume

### **DEFINITIONS**

**Buffer Strip.** An existing, variable width strip of vegetated land intended to protect water quality and habitat.

**Catch Basin.** A chamber usually built at the curb line of a street for the admission of surface water to a storm sewer or subdrain, having at its base a sediment sump designed to retain grit and detritus below the point of overflow.

**Channel**. A portion of a natural or artificial watercourse which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water. It has a defined bed and banks which serve to confine the water.

**Contour.** An imaginary line on the surface of the earth connecting points of the same elevation.

**Conveyance.** Any structural method for transferring stormwater between at least two points.

**County Surveyor**. A constitutional officer of the County, elected to a 4-year term from the County at large. Primary duties of the surveyor include maintaining annexation descriptions, legal survey book, and section corner record book. Surveyor is also an ex-officio member of the County Drainage Board and the technical authority on the construction, reconstruction, and maintenance of all regulated drains or proposed regulated drains in the County. Other major responsibilities of the surveyor include administering filter strip programs, membership in the County Plan Commission, and certification to the Indiana Alcoholic Beverage Commission.

**Detention.** Managing stormwater runoff by temporary holding and controlled release.

**Discharge.** Usually the rate of water flow. A volume of fluid passing a point per unit time commonly expressed as cubic feet per second, cubic meters per second, gallons per minute, or millions of gallons per day.

**Ditch**. A man-made, open drainageway in or into which excess surface water or groundwater drained from land, stormwater runoff, or floodwaters flow either continuously or intermittently.

**Drain.** A buried slotted or perforated pipe or other conduit (subsurface drain) or a ditch (open drain) for carrying off surplus groundwater or surface water.

**Drainage.** The removal of excess surface water or groundwater from land by means of ditches or subsurface drains. Also see Natural drainage.



**Environment.** The sum total of all the external conditions that may act upon a living organism or community to influence its development or existence.

**Erosion.** The wearing away of the land surface by water, wind, ice, gravity, or other geological agents. The following terms are used to describe different types of water erosion:

- Accelerated erosion--Erosion much more rapid than normal or geologic erosion, primarily as a result of the activities of man.
- Channel erosion --An erosion process whereby the volume and velocity of flow wears away the bed and/or banks of a well-defined channel.
- Gully erosion --An erosion process whereby runoff water accumulates in narrow channels and, over relatively short periods, removes the soil to considerable depths, ranging from 1-2 ft. to as much as 75-100 ft.
- Rill erosion--An erosion process in which numerous small channels only several inches deep are formed; occurs mainly on recently disturbed and exposed soils (see Rill).
- Splash erosion--The spattering of small soil particles caused by the impact of raindrops on wet soils; the loosened and spattered particles may or may not be subsequently removed by surface runoff.
- Sheet erosion--The gradual removal of a fairly uniform layer of soil from the land surface by runoff water.

**Filter Strip.** Usually a long, relatively narrow area (usually, 20-75 feet wide) of undisturbed or planted vegetation used to retard or collect sediment for the protection of watercourses, reservoirs, or adjacent properties. See also Classified Filter Strip.

**Floatable.** Any solid waste that will float on the surface of the water.

**Flood or Flood Waters**. A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow, the unusual and rapid accumulation, or the runoff of surface waters from any source.

**Floodplain**. The channel proper and the areas adjoining the channel which have been or hereafter may be covered by the regulatory or 100-year flood. Any normally dry land area that is susceptible to being inundated by water from any natural source. The floodplain includes both the floodway and the floodway fringe districts.

**Floodway**. The channel of a river or stream and those portions of the flood plains adjoining the channel which are reasonably required to efficiently carry and discharge the peak flow of the regulatory flood of any river or stream.



**Household Hazardous Waste.** Solid waste generated by households that is ignitable, toxic, reactive, corrosive, or otherwise poses a threat to human health or the environment.

**Illicit Discharge.** Any discharge to an MS4 conveyance that is not composed entirely of stormwater.

Impervious. Not allowing infiltration.

**Infiltration**. Passage or movement of water into the soil.

**Minimum Control Measure (MCM).** Minimum measures required by the NPDES Phase II program. The six (6) MCMs are: Public Education and Outreach, Public Participation and Involvement, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post-Construction Runoff Control, and Pollution Prevention and Good Housekeeping.

**MS4 Operator.** The person responsible for development, implementation, or enforcement of the MCMs for a designated MS4 area.

**Municipal Separate Storm Sewers**. An MS4: (1) is a conveyance or system of conveyances owned by the state, County, city, town, or other public entity; (2) discharges to waters of the U.S.; (3) is designed or used for collecting or conveying stormwater; (4) is not a combined sewer; and, (5) is not part of a Publicly Owned Treatment Works (POTW's).

**National Pollution Discharge Elimination System**. A permit developed by the U.S. EPA through the Clean Water Act. In Indiana, the permitting process has been delegated to IDEM. This permit covers aspects of municipal stormwater quality.

**Nutrient(s).** (1) A substance necessary for the growth and reproduction of organisms. (2) In water, those substances (chiefly nitrates and phosphates) that promote growth of algae and bacteria.

**Open Space.** Any land area devoid of any disturbed or impervious surfaces created by industrial, commercial, residential, agricultural, or other manmade activities.

**Outfall.** The point, location, or structure where wastewater or drainage discharges from a pipe or open drain to a receiving body of water.

**Pervious.** Allowing movement of water.

**Pesticides.** Chemical compounds used for the control of undesirable plants, animals, or insects. The term includes insecticides, herbicides, algicides, rodenticides, nematicides, fungicides, and growth regulators.



**pH.** A numerical measure of hydrogen ion activity, the neutral point being 7.0. All pH values below 7.0 are acid, and all above 7.0 are alkaline.

**Piping.** The formation of "pipes" by underground erosion. Water in the soil carries the fine soil particles away, and a series of eroded tubes or tunnels develop. These openings will grow progressively larger and can cause a dam failure.

**Professional Engineer**. A person licensed under the laws of the State of Indiana to practice professional engineering.

**Programmatic Indicator.** Any data collected by an MS4 entity that is used to indicate implementation of one (1) or more minimum control measures.

**Publicly Owned Treatment Works**. A municiple operation that breaks down and removes contaminants in the wastewater prior to discharging to a stream through primary and/or secondary treatment systems.

**Receiving Stream.** The body of water into which runoff or effluent is discharged.

**Redevelopment.** Alterations of a property that change a site or building in such a way that there is disturbances of one (1) acre or more of land.

**Regulated Drain.** A drain, either open channel or closed tile/sewer, subject to the provisions of the Indiana Drainage Code, I.C.-36-9-27.

**Runoff.** That portion of precipitation that flows from a drainage area on the land surface, in open channels, or in stormwater conveyance systems.

**Sand.** (1) Soil particles between 0.05 and 2.0 mm in diameter. (2) A soil textural class inclusive of all soils that are at least 70% sand and 15% or less clay.

**Sediment.** Solid material (both mineral and organic) that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface.

**Slope.** Degree of deviation of a surface from the horizontal, measured as a numerical ratio or percent. Expressed as a ratio, the first number is commonly the horizontal distance (run) and the second is the vertical distance (rise)--e.g., 2:1. However, the preferred method for designation of slopes is to clearly identify the horizontal (H) and vertical (V) components (length (L) and Width (W) components for horizontal angles). Also note that according to international standards (Metric), the slopes are presented as the vertical or width component shown on the numerator--e.g., 1V:2H. Slope expressions in this handbook follow the common presentation of slopes--e.g., 2:1 with the metric presentation shown in parenthesis--e.g., (1V:2H). Slopes can also be expressed in "percents". Slopes given in percents are always expressed as (100\*V/H) --e.g., a 2:1 (1V:2H) slope is a 50% slope.



**Soil.** The unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants. Also see alluvial soil, Clay, Cohesive soil, Loam, Permeability (soil), Sand, Silt, Soil horizon, Soil profile, Subsoil, Surface soil, Topsoil.

**Soil and Water Conservation District (SWCD).** A public organization created under state law as a special-purpose district to develop and carry out a program of soil, water, and related resource conservation, use, and development within its boundaries. A subdivision of state government with a local governing body.

**Solid Waste.** Any garbage, refuse, debris, or other discarded material.

**Stormwater.** Water resulting from rain, melting or melted snow, hail, or sleet.

**Stormwater Runoff.** The water derived from rains falling within a tributary basin, flowing over the surface of the ground or collected in channels or conduits.

**Stormwater Quality Management Plan (SWQMP).** A comprehensive written document that addresses stormwater runoff quality within an MS4 area. The SWQMP is divided into three (3) submittal parts: Part A – Initial Application, Part B – Baseline Characterization and On-going Monitoring Plan, and Part C – Program Implementation.

**Storm Sewer.** A sewer that carries stormwater, surface drainage, street wash, and other wash waters but excludes sewage and industrial wastes. Also called a storm drain.

**Subwatershed.** A watershed subdivision of unspecified size that forms a convenient natural unit. See also Subarea.

**Surface Runoff.** Precipitation that flows onto the surfaces of roofs, streets, the ground, etc., and is not absorbed or retained by that surface but collects and runs off.

**Swale.** An elongated depression in the land surface that is at least seasonally wet, is usually heavily vegetated, and is normally without flowing water. Swales conduct stormwater into primary drainage channels and may provide some groundwater recharge.

**Town.** An incorporated area which for various reasons has not held the necessary elections to be classified as a city. In this document the term is usually used in reference to the Town of Wesfield, Indiana.

**Tributary**. Based on the size of the contributing drainage area, a smaller watercourse which flows into a larger watercourse.



**Urbanized Area.** A land area comprising one (1) or more places that together have a residential population of at least fifty thousand (50,000) and an overall population density of at least five hundred (500) people per square mile.

**Water Quality.** A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

**Watercourse.** Any river, stream, creek, brook, branch, natural or man-made drainageway in or into which stormwater runoff or floodwaters flow either continuously or intermittently.

**Watershed**. The region drained by or contributing water to a specific point that could be along a stream, lake or other stormwater facilities. Watersheds are often broken down into subareas for the purpose of hydrologic modeling.

**Watershed Area.** All land and water within the confines of a drainage divide. See also Watershed.

**Wetlands**. Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions and/or those wetland areas that are under the COE jurisdiction.

Appendix C Public Education Memorandum of Understanding

Appendix D SWQMP PART C: PROGRAM IMPLEMENTATION CERTIFICATION CHECKLIST

Appendix E CERTIFICATION OF THE INFORMATIONAL PROGRAM FOR THE PUBLIC EDUCATION AND OUTREACH MCM

Appendix F CERTIFICATION OF THE PUPLIC PARTICIPATION AND INVOLVEMENT PROGRAM FOR THE PUBLIC PARTICIPATION AND INVOLVEMENT MCM

Appendix G CERTIFICATION OF THE PLAN TO DETECT, ADDRESS AND ELIMINATE ILLICIT DISCHARGES FOR THE ILLICIT DETECTION AND EILIMINATION MCM

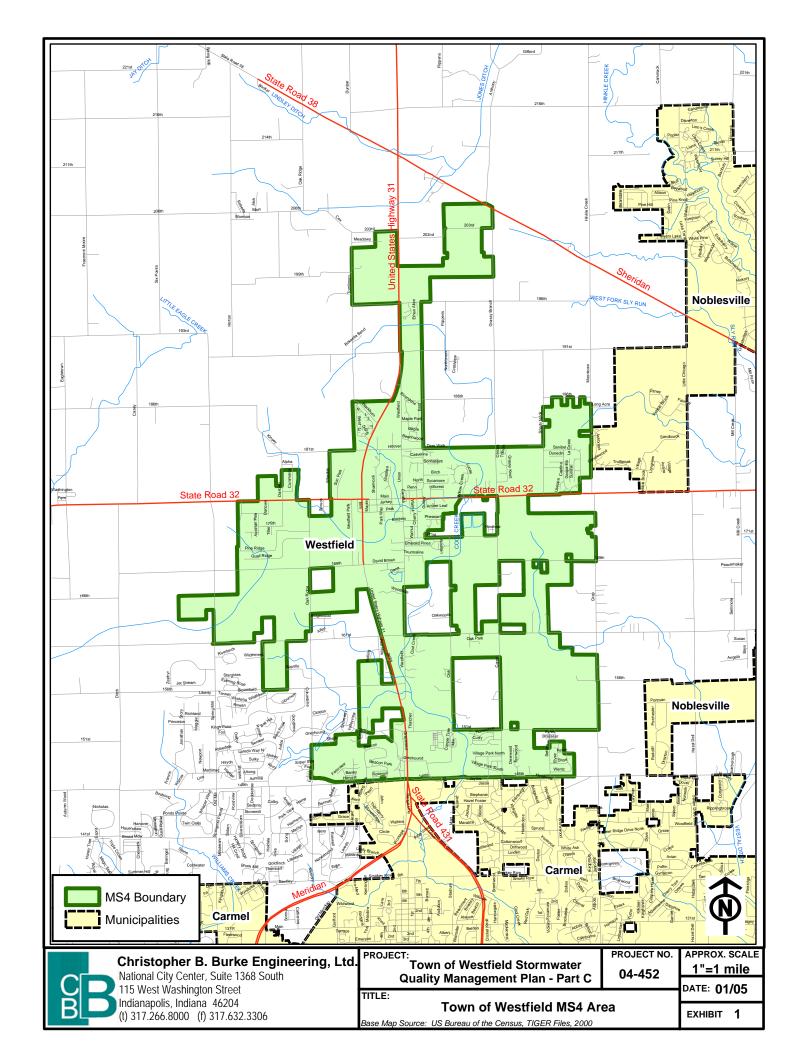
Appendix H CERTIFICATION OF THE DEVELOPMENT,
IMPLEMENTATION, MANAGEMENT AND ENFORCEMENT
OF AN EROSION AND SEDIMENT CONTROL PROGRAM FOR THE
CONSTRUCTION SITE STORMWATER RUN-OFF CONTROL MCM

Appendix I CERTIFICATION OF THE DEVELOPMENT
IMPLEMENTATION, MANAGEMENT AND ENFORCEMENT
OF A POST-CONSTRUCTION STORMWATER RUNOFF CONTROL
PROGRAM FOR THE POST-CONSTRUCTION SITE STORMWATER
RUN-OFF CONTROL MCM

APPENDIX J CERTIFICATION OF THE DEVELOPMENT AND
IMPLEMENTATION OF A PROGRM TO REDUCE POLLUTANT
RUN-OFF FROM MUNICIPAL OPERATIONS FOR THE MUNICIPAL
OPERATIONS POLLUTION PREVENTION AND GOOD HOUSEKEEPING MCM

### APPENDIX K LISTING OF ACTIVE INDUSTRIAL FACILITIES

Facility Name	Street Address	Mailing Address	Telephone Number	SIC Code
Bearing	17414 Tiller Ct	17414 Tiller Ct	Nullibel	Code
Technology Inc.	Westfield, IN	Westfield, IN	317-867-2717	3562
reciniology inc.	17041 Westfield Park Dr	17041 Westfield Park Dr	317-007-2717	3302
Cor-Tube Inc	Westfield, IN	Westfield, IN	317-867-4162	3082
Enterprise Marking	17450 Tiller Ct	17450 Tiller Ct	011 001 1102	0002
Products	Westfield, IN	Westfield, IN	317-867-7600	2672
	320 Parkway Cir	320 Parkway Cir		
Logo USA Corp	Westfield, IN	Westfield, IN	317-844-5348	2396
MidCon	,			
Manufacturing	17201 Westfield Park Dr	17201 Westfield Park Dr		
Corp	Westfield, IN	Westfield, IN	317-867-0335	3694
Premium Surfaces	17401 Tiller Ct Ste D	17401 Tiller Ct Ste D		
Fabrication	Westfield, IN	Westfield, IN	317-867-1013	2821
	PO Box 296	17032 US 31N		
Sakrete Inc	Westfield, IN	Westfield, IN	317-896-2184	3272
	1010 Kendall Ct	1010 Kendall Ct		
Simba Inc	Westfield, IN	Westfield, IN	317-896-3880	3993
Siti Industrial	17338 Westfield Park Rd	17338 Westfield Park Rd		
Products Inc	Westfield, IN	Westfield, IN	317-867-1159	3444
Standard Locknut	PO Box 780	1045 E 169 <sup>th</sup> St		
Inc	Westfield, IN	Westfield, IN	317-867-0100	3599
	17728 Sun Park Dr	17728 Sun Park Dr		
Sun Packaging Inc	Westfield, IN	Westfield, IN	317-896-2591	2673
Truss	17350 US Highway 31 N	PO Box 418		
Manufacturing Co	Westfield, IN	Westfield, IN		
Inc			317-896-2571	2439
Uniform Hood	18881 US Highway 31 N	PO Box 364		
Lace Inc	Westfield, IN	Westfield, IN	317-896-9555	2399
Westfield Door &	17309 Westfield Park Rd	PO Box 868		
Frame Inc	Westfield, IN	Westfield, IN	317-896-2100	2431





### RULE 13 STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) -

PART C: PROGRAM IMPLEMENTATION CERTIFICATION CHECKLIST

State Form 51280 (R2 / 11-03)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

NOTE:

- This form must be used for compliance with a general NPDES permit pursuant to 327 IAC 15-13.
- Submit this completed form with a complete "SWQMP Part C: Program Implementation" in accordance with 327 IAC 15-13-8.
- Return this completed and signed form, and any required addenda by mail to the IDEM Rule 13 Coordinator at the address listed in the box on the upper-right.

For questions regarding this form, contact:

IDEM – Rule 13 Coordinator 100 North Senate Avenue, Rm 1255

P.O. Box 6015 Indianapolis, IN 46206-6015 Phone: (317) 234-1601 or

(800) 451-6027, ext. 41601 (within Indiana)

Web Access:

 $\underline{http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule13.html}$ 

# PART A: SWQMP CERTIFICATION CHECKLIST ➤ Please check the appropriate box when the requirements for each numbered item have been met, or check "NA" if an item is not applicable. For some of the numbered items, the requirements must be met and "not applicable" is not provided as an option. X NA ITEM

Х	NA	ITEM		
Х	•	SWQMP – Part C: Program Implementation submitted within 1 year from the submission of the NOI letter or the expiration date of the previous 5-year permit term.		
	Χ	2. Approved TMDL established for any MS4 discharge receiving water.		
	Χ	* If yes, the SWQMP – Part C includes appropriate modifications to meet the TMDL		
Χ		3. SWQMP – Part C identifies that the required ordinances or similar regulatory mechanisms will be developed, revised, modified, and/or implemented within two (2) years from the submission of the NOI letter		
		4. The SWQMP – Part C contains:		
Χ		a) An initial evaluation of the storm water program for the MS4 area		
X		* The initial evaluation includes all known structural and nonstructural storm water BMPs		
Χ		b) A detailed program description for each MCM		
Х		c) A timetable for program implementation milestones and SWQMP-Part B conclusions		
Χ		<ul> <li>d) A schedule for on-going receiving water characterization to evaluate BMP effectiveness and receiving water quality</li> </ul>		
Х		e) A narrative and mapped description of the MS4 area boundaries		
Х		*The boundary description includes the specific section(s), or, as appropriate, street name(s)		
Х		f) An estimate of the linear feet of MS4, segregated by conveyance type		
Х		g) A narrative summary of allowed structural BMP types in new development and redevelopment		
Χ		h) A summary on structural BMP selection criteria and performance standards		
Χ		i) A narrative summary of the current and projected storm water budget		
Χ		j) A narrative summary of measurable goals for each MCM		
Χ		* Measurable goals relate to an environmental benefit		
X		k) Appropriate, completed state-issued certification forms (only required for the initial 5-year permit term)		
Χ		i) Public education and outreach MCM		
X		ii) Public participation and involvement MCM		
Χ		iii) Illicit discharge detection and elimination MCM		
	Χ	iv) Construction site storm water run-off control MCM		
	Х	v) Postconstruction storm water run-off control MCM (not required until end of second year of permit coverage)		
X		vi) Pollution prevention and good housekeeping for operations MCM		
X		A listing of programmatic indicators for each MCM. These indicators include:		
Χ		i) Number or percentage of citizens that have an awareness of storm water quality issues		
Х		ii) Number and description of meetings, training sessions, and events conducted to involve citizens		
Χ		iii) Number or percentage of citizens that participate in storm water quality improvement projects		
Χ		iv) Number and location of storm drains marked or cast		
Χ		v) Estimated or actual linear feet or percentage of MS4 conveyances mapped		
Χ		vi) Number and location of MS4 area outfalls mapped		
Χ		vii) Number and location of MS4 area outfalls screened for illicit discharges		
Χ		viii) Number and location of illicit discharges detected		
Х		ix) Number and location of illicit discharges eliminated		
Χ		x) Number of, and estimated amount of material collected from, HHW collections		
Χ		xi) Number and location of citizen drop-off centers for automotive fluids		

#### PART A: SWQMP CERTIFICATION CHECKLIST

▶ Please check the appropriate box when the requirements for each numbered item have been met, or check "NA" if an item is not applicable. For some of the numbered items, the requirements must be met and "not applicable" is not provided as an option.

X	NA	ITEM
Х		xii) Number or percentage of citizens that participate in HHW collections
Х		xiii) Number of construction sites permitted for storm water quality
Χ		xiv) Number of construction sites inspected
Χ		xv) Number and type of enforcement actions taken against construction site operators
Χ		xvi) Number of public informational requests received related to construction sites
Χ		xvii) Number, type, and location of structural BMPs installed
Χ		xviii) Number, type, and location of structural BMPs inspected
Χ		xix) Number, type, and location of structural BMPs maintained, or improved, to function properly
Χ		xx) Type and location of nonstructural BMPs utilized
Х		xxi) Estimated acreage or square footage of open space preserved and mapped
	Х	xxii) Estimated acreage or square footage of mapped pervious and impervious surfaces
Χ		xxiii) Number and location of retail gasoline outlets or municipal, state, federal, or institutional refueling areas with installed BMPs
Х		xxiv) Number and location of entity facilities that have containment for accidental releases
Х		xxv) Estimated acreage or square footage and location where pesticides and fertilizers are applied by the
^		regulated MS4 entity
	Х	xxvi) Estimated linear feet or percentage and location of unvegetated swales and ditches that have an appropriately-sized vegetated filter strip
Х		xxvii) Estimated linear feet or percentage and location of MS4 conveyances cleaned or repaired
Χ		xxviii) Estimated linear feet or percentage and location of roadside shoulders and ditches stabilized
Х		xxix) Number and location of storm water outfall areas remediated from scouring conditions
Х		xxx) Number and location of de-icing salt and sand storage areas covered or otherwise improved to
Х		minimize storm water exposure xxxi) Estimated amount, in tons, of salt and sand used for snow and ice control
		xxxii) Estimated amount of material by weight collected from catch basin, trash rack, or other structural BMP
Х		cleaning
Х		xxxiii) Estimated amount of material by weight collected from street sweeping
Х		xxxiv) Number or percentage and location of canine parks sited at least 150 feet away from a surface water body
	X	xxxv) Other
Х		5. SWQMP – Part C identifies, as a minimum, the following compliance schedule for implementation from the submission
		day of the NOI letter:
X		a) "SWQMP – Part B: Baseline Characterization and Report" submitted within 180 days
X		b) Public education and outreach program developed and implemented within 1 year
Х		<ul> <li>c) Public involvement and participation program developed and implemented within 1 year</li> <li>d) Illicit discharge plan and ordinance developed and program implemented and all major outfall conveyances</li> </ul>
Х		mapped within 1 year
Χ		e) 25% of storm water outfall conveyance systems mapped each year after 1 year
Χ		f) All known storm water outfalls with a diameter greater than 12 inches and open ditches mapped within 5 years
Х		g) Construction site plan and ordinance developed and program implemented within 1 year
Χ		h) O&M plan developed and program implemented within 2 years
Χ		i) Postconstruction plan and ordinance developed and program implemented within 2 years
Χ		j) Operations pollution prevention program developed and implemented within 1 year
		6. For the Public Education and Outreach MCM:
Χ		a) Plan identifies and schedules implementation of an informational program for constituents
Х		b) Plan identifies initial assessment of constituents
Х		c) Plan identifies specific target outreach or reduction goal percentages and timetables
	Х	d) For CSS communities, the current LTCP has been reviewed for ensuring that there is consistency with this MCM
		7. For the Public Participation/Involvement MCM:
X		a) Plan identifies and schedules implementation of a public participation program
X		b) Plan identifies initial assessment of constituents
X	.,	c) Plan identifies specific public involvement and reduction goal percentages and timetables
	Х	d) For CSS communities, the current LTCP has been reviewed for ensuring that there is consistency with this MCM
		8. For the Illicit Discharge Detection and Elimination MCM:
Х		a) Plan schedules development of a storm sewer system map

#### PART A: SWQMP CERTIFICATION CHECKLIST

▶ Please check the appropriate box when the requirements for each numbered item have been met, or check "NA" if an item is not applicable. For some of the numbered items, the requirements must be met and "not applicable" is not provided as an option.

X	NA	ITEM
Λ	NA	
Х		b) Plan schedules development and implementation of an ordinance or other regulatory mechanism that prohibits illicit discharges into the storm sewer system
Х		<ul> <li>Plan identifies and schedules implementation of a plan to detect, address, and eliminate illicit discharges, including illegal dumping, into the storm sewer system</li> </ul>
X		i) This plan requires that problem areas be located via dry weather screening or other means
Х		<ul> <li>This plan requires that the source of the problem be located, the illicit connection be removed or corrected, and the actions taken be documented</li> </ul>
Х		iii) This plan identifies all known active industrial facilities that discharge into a regulated MS4 conveyance
Х		<ul> <li>d) Plan identifies and schedules implementation of an education program for public employees, businesses, and the general public about the hazards associated with illicit discharges and improper disposal of waste</li> </ul>
Х		e) Plan establishes a recycling program for commonly dumped wastes
Х		f) Plan identifies specific outreach and reduction goal percentages and timetables
	X	<ul> <li>g) For CSS communities, the current CSOOP and LTCP have been reviewed for ensuring that there is consistency with this MCM</li> </ul>
		9. For the Construction Site Storm Water Run-off Control MCM:
Х		a) Plan schedules development and implementation of an ordinance or other regulatory mechanism that controls
Х	П	polluted run-off from construction sites with a land disturbance of greater than or equal to one (1) acre b) Plan established written agreement or process to allow local SWCD input
X		c) Plan identifies and schedules implementation of a requirement to use appropriate BMPs on construction sites to
^		control sediment and erosion and other waste at a site
Х		<ul> <li>d) Plan identifies and schedules implementation of procedures for plan review, site inspection (including prioritization of sites) and enforcement of control measures to deter infractions</li> </ul>
Х		e) Plan identifies procedures for plan review of projects operated by the MS4 operator
X		f) Plan requires annual training for MS4 personnel responsible for implementing this MCM
Х		g) Plan identifies and schedules implementation of procedures for receipt and consideration of public inquiries,
Х		concerns, and information submitted regarding local construction activities  h) Plan identifies specific outreach, compliance, and implementation goals and timetables
X		10. For the Postconstruction Storm Water Run-off Control MCM:
Х		a) Plan schedules development and implementation of an ordinance or other regulatory mechanism that requires
		the implementation of planning procedures to promote improved water quality
X		<ul> <li>i) Plan procedures include the postconstruction requirements of 327 IAC 15-5-6.5(a)(8)</li> <li>ii) Where appropriate, procedures include buffer strip and riparian zone preservation</li> </ul>
X		ii) Where appropriate, procedures include buffer strip and riparian zone preservation iii) Where appropriate, procedures include filter strip creation
X		iv) Where appropriate, procedures include minimization of land disturbance and surface imperviousness
Х		v) Where appropriate, procedures include maximization of open space
	Х	vi) Where appropriate, procedures include directing community physical growth away from sensitive areas and towards areas that can support it without compromising water quality
Х		b) Plan identifies the use of any storage, infiltration, filtering, and/or vegetative practice to reduce the impact of pollutants on storm water run-off to meet narrative water quality standards on receiving waters
X		i) Plan prohibits using infiltration practices in well head protection areas
Х		<li>As site conditions allow, plan requires an appropriately-sized vegetated filter strip width along unvegetated swales/ditches</li>
X		iii) Plan prohibits discharges directly to sinkholes or fractured bedrock, without appropriate treatment to meet Indiana ground water quality standards
Х		<ul> <li>iv) Plan requires any discharge from a storm water practice that is a Class V injection well to meet Indiana ground water quality standards</li> </ul>
Х		<ul> <li>Plan requires installation of appropriate BMPs to reduce metals and hydrocarbons at new retail gasoline outlets or municipal/institutional refueling areas</li> </ul>
X		vi) As site conditions allow, plan regulates the rate of storm water flow through the MS4 conveyances
X X		vii) Plan requires annual training for MS4 personnel responsible for implementing this MCM viii) Plan identifies and schedules implementation of a written O&M plan for structural BMPs.
X		c) Plan identifies specific goals for reduction percentages and timetables
		11. For the Municipal Operations Pollution Prevention and Good Housekeeping MCM:
Х		a) Plan identifies and schedules implementation of a written program to ensure that existing municipal, State or
		Federal operations are performed in ways that will minimize contamination of storm water discharges  i) Program addresses written documentation of maintenance activities, maintenance schedules, and long-term
Х		inspection procedures for BMPs to reduce floatables and other pollutants discharged from the storm sewer system
Х		ii) Program addresses controls for reducing or eliminating the discharge of pollutants from operational areas, including roads, parking lots, maintenance and storage yards, and waste transfer stations
Х		iii) Program requires a minimum distance of 150 feet for canine parks to be sited away from a surface water body
Х		iv) Program addresses written procedures for the proper disposal of waste removed from MS4 conveyances and operational areas
х		v) Program addresses written documentation to ensure that new flood management projects assess their impacts on water quality and examine existing projects for incorporation of additional water quality protection devices or practices
X		vi) Program addresses documentation for MS4 area personnel to attend annual training regarding this MCM
X		b) Plan identifies specific reduction goal percentages and timetables

PART A: SWQMP CERTIFICATION CHECKLIST		
▶ Please check the appropriate box when the requirements for each numbered item have been met, or check "NA" if an item is not applicable. For some of the numbered items, the requirements must be met and "not applicable" is not provided as an option.		
X	NA	ITEM
	Х	c) For CSS communities, the current CSOOP and LTCP have been reviewed for ensuring that there is consistency with this MCM
X		12. "SWQMP – Part C: Program Implementation" has been certified by a Qualified Professional and the MS4 Operator.

#### PART B: CERTIFICATION AND SIGNATURE

▶ The Qualified Professional and MS4 Operator (referenced in Part A, Item #12 of this form) must sign the following certification statement: and provide the pertinent NPDES permit number:

"By signing this checklist, I hereby certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name of Qualified Professional: Siavash E. Beik, P.E., CFM  (typed or printed)	NPDES Permit #:	INR040109
Signature of Qualified Professional:	Date:	(mm/dd/year)
Name of MS4 Operator: <u>Jerry Rosenberger, Town Manager</u> (typed or printed)		
Signature of MS4 Operator:	Date:	(mm/dd/year)



### **RULE 13 –**

### Certification of the Informational Program for the Public Education and Outreach MCM

State Form 51279 (R2 / 11-03)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

NOTE:

- This form must be used to comply with section 12(b) of 327 IAC 15-13
- The storm water quality Public Education and Outreach program must be implemented within three hundred sixty-five (365) days of the Notice of Intent (NOI) letter submittal date.
- Submit this completed form when the education program has been developed and implemented.
- Return this completed and signed form, and any required addenda by mail to the IDEM Rule 13 Coordinator at the address listed in the box on the upper-right.

#### For questions regarding this form, contact:

IDEM – Rule 13 Coordinator 100 North Senate Avenue, Rm 1255 P.O. Box 6015

Indianapolis, IN 46206-6015 Phone: (317) 234-1601 or

(317) 234-1601 or (800) 451-6027, ext. 41601 (within Indiana)

Web Access:

http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule13.html

	OFFITION AND OF	ONATURE
	CERTIFICATION AND SIG	GNATURE
impleme storm wa be imple The "aut this MCN	te of Indiana requiresJerry Rosenberger_ent an informational program with educational materials for in a ter run-off on water quality, and ways they can minimize the emented within three hundred sixty-five (365) days of the No thorized signature" required below must be either that of the M, the responsible individual. The "title" must either be "MS at individual and associated MS4 entity represented (for example).	on forming constituents about the impacts of polluted eir impact on storm water quality. This program must tice of Intent (NOI) letter submittal date.  MS4 operator, or, if another entity is responsible for 4 operator, or, if a responsible individual signs, the
certificat	ollowing statement, required by the State of Indiana, and the tion that the program has been developed and implemented ed under NPDES permit number INR040128	
"I certify, under penalty of law, that this program and all required materials were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the above statement is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."		
	zed Signature:	Date:
_	MS4 Operator; Town Manager	
	(typed or printed)	



### Certification of the Public Participation And Involvement **Program for The Public Participation And Involvement**

State Form 51273 (R2 / 11-03)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

#### NOTE:

- This form must be used to comply with section 13(b) of 327 IAC 15-13.
- The public participation and involvement program must be implemented within three hundred sixty-five (365) days of the Notice of Intent (NOI) letter submittal date.
- Submit this completed form when the program has been developed and implemented.
- Return this completed and signed form, and any required addenda by mail to the IDEM Rule 13 Coordinator at the address listed in the box on the upper-right.

#### For questions regarding this form, contact:

IDEM - Rule 13 Coordinator 100 North Senate Avenue, Rm 1255

P.O. Box 6015 Indianapolis, IN 46206-6015

Phone:

(317) 234-1601 or (800) 451-6027, ext. 41601 (within Indiana)

Web Access:

 $\underline{http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule13.html}$ 

CERTIFICATION AND SIGNATURE		
The State of Indiana requiresJerry Rosenberger(MS4 Operator) to develop public participation and involvement program to allow opportunities for constituents to participate in t management program development and implementation. This program must be implemented within five (365) days of the Notice of Intent (NOI) letter submittal date.	the storm water	
► The following statement, required by the State of Indiana, and the accompanying signature serve as the required certification that the program has been developed and implemented per the requirements of 327 IAC 15-13 and authorized under NPDES permit number INR040128		
"I certify, under penalty of law, that this program and all required materials were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the above statement is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."		
Authorized Signature <sup>1</sup> : Date:	n/dd/year)	
Title <sup>2</sup> : MS4 Operator; Town Manager		
(typed or printed)		
<sup>1</sup> The "authorized signature" required above must be either that of the MS4 operator, or, if another entity is responsible individual. <sup>2</sup> The "title" must either be "MS4 operator", or, if a responsible individual signs, the title of that individual and associated (for example, mayor of the City of Indianapolis).		



#### **RULE 13 –**

### Certification of the Plan To Detect, Address, and Eliminate Illicit Discharges for the Illicit Detection and Elimination MCM

State Form 51271 (R2 / 11-03)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

#### NOTE:

- This form must be used to comply with section 14(g) of 327 IAC 15-13.
- The implementation plan for this MCM must be implemented within three hundred sixty-five (365) days of the Notice of Intent (NOI) letter submittal date.
- Submit this completed form when the plan has been developed and implemented.
- Return this completed and signed form, and any required addenda by mail to the IDEM Rule 13 Coordinator at the address listed in the box on the upper-right.

represented (for example, mayor of the City of Indianapolis).

#### For questions regarding this form, contact:

IDEM – Rule 13 Coordinator 100 North Senate Avenue, Rm 1255

P.O. Box 6015 Indianapolis, IN 46206-6015

Phone: (317) 234-1601 or

(800) 451-6027, ext. 41601 (within Indiana) Web Access:

http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule13.html

CERTIFICATION AND SIGNATURE		
The State of Indiana requiresJerry Rosenberger(MS4 Operator) to det to detect and eliminate illicit discharges, including illegal dumping, into the MS4. As part of th within the regulated MS4 area must be mapped throughout the five-year permit term. The pla within three hundred sixty-five (365) days of the Notice of Intent (NOI) letter submittal date.		
► The following statement, required by the State of Indiana, and the accompanying signature serve as the required certification that the program has been developed and implemented per the requirements of 327 IAC 15-13 and authorized under NPDES permit number INR040128		
"I certify, under penalty of law, that this plan and all required materials were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the above statement is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."		
Authorized Signature <sup>1</sup> : Date:		
Title <sup>2</sup> : MS4 Operator; Town Manager	(mm/dd/year)	
(typed or printed)		
<sup>1</sup> The "authorized signature" required above must be either that of the MS4 operator, or, if another entity is responsible individual. <sup>2</sup> The "title" must either be "MS4 operator", or, if a responsible individual signs, the title of that individual as		



Certification of the Development, Implementation, Management, and Enforcement of an Erosion and Sediment Control Program for the Construction Site Storm Water Run-Off Control MCM

State Form 51272 (R2 / 11-03)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

#### NOTE:

- This form must be used to comply with section 15(b) of 327 IAC 15-13.
- The program required under this MCM must be implemented within three hundred sixty-five (365) days of the Notice of Intent (NOI) letter submittal date.
- Submit this completed form when the program has been developed and implemented.
- Return this completed and signed form, and any required addenda by mail to the IDEM Rule 13 Coordinator at the address listed in the box on the upper-right.

#### For questions regarding this form, contact:

IDEM – Rule 13 Coordinator 100 North Senate Avenue, Rm 1255 P.O. Box 6015

Indianapolis, IN 46206-6015 Phone: (317) 234-1601 or

(800) 451-6027, ext. 41601 (within Indiana)

Web Access:

http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule13.html

CERTIFICATION AND SIGNATURE			
The State of Indiana requires	vities that disturb one (1) or more or other regulatory mechanism must ater program (327 IAC 15-5). This		
▶ The following statement, required by the State of Indiana, and the accompanying signature serve as the required certification that the program has been developed and implemented per the requirements of 327 IAC 15-13 and authorized under NPDES permit number INR040128			
"I certify, under penalty of law, that this program and all required documents and materials were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the above statement is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."			
Authorized Signature <sup>1</sup> : Date:			
Title <sup>2</sup> : MS4 Operator; Town Manager  (typed or printed)			
<ul> <li>The "authorized signature" required above must be either that of the MS4 operator, or, if and responsible individual.</li> <li>The "title" must either be "MS4 operator", or, if a responsible individual signs, the title of that represented (for example, mayor of the City of Indianapolis).</li> </ul>			



Certification of the Development, Implementation, Management, and Enforcement of a Postconstruction Storm Water Run-Off Control Program for the Postconstruction Storm Water Run-Off Control MCM

State Form 51274 (R3 / 11-03)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

#### NOTE:

- This form must be used to comply with section 16(b) and (e) of 327 IAC 15-13.
- The program required under this MCM must be implemented within seven hundred thirty (730) days of the Notice of Intent (NOI) letter submittal date.
- Submit this completed form when the program has been developed and implemented.
- Return this completed and signed form, and any required addenda by mail to the IDEM Rule 13 Coordinator at the address listed in the box on the upper-right.

#### For questions regarding this form, contact:

IDEM – Rule 13 Coordinator 100 North Senate Avenue, Rm 1255 P.O. Box 6015

Indianapolis, IN 46206-6015 Phone: (317) 234-1601 or

(317) 234-1601 or (800) 451-6027, ext. 41601 (within Indiana)

Web Access:

http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule13.html

CERTIFICATION AND SIGNATURE			
The State of Indiana requires	r run-off from new development turbs one (1) acre or more of land. or modified, and a written ctices (BMPs) must be developed		
► The following statement, required by the State of Indiana, and the accompanying signertification that the program has been developed and implemented per the requirement authorized under NPDES permit number INR040128			
"I certify, under penalty of law, that this program and all required documents and materials were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the above statement is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."			
Authorized Signature <sup>1</sup> : Date: (mm/dd/year)			
Title <sup>2</sup> : MS4 Operator; Town Manager (typed or printed)			
<sup>1</sup> The "authorized signature" required above must be either that of the MS4 operator, or, if anothe responsible individual.	er entity is responsible for this MCM, the		

<sup>2</sup>The "title" must either be "MS4 operator", or, if a responsible individual signs, the title of that individual and associated MS4 entity

represented (for example, mayor of the City of Indianapolis).



Certification of the Development and Implementation of a Program to Reduce Pollutant Run-Off from Municipal Operations for the Municipal Operations Pollution Prevention and Good Housekeeping MCM

State Form 51281 (R2 / 11-03)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

#### NOTE:

- This form must be used to comply with section 17(b) of 327 IAC 15-
- The program required under this MCM must be implemented within three hundred sixty-five (365) days of the Notice of Intent (NOI) letter submittal date.
- Submit this completed form when the program has been developed and implemented.
- Return this completed and signed form, and any required addenda by mail to the IDEM Rule 13 Coordinator at the address listed in the box on the upper-right.

#### For questions regarding this form, contact:

IDEM – Rule 13 Coordinator 100 North Senate Avenue, Rm 1255 P.O. Box 6015

Indianapolis, IN 46206-6015 Phone: (317) 234-1601 or

(317) 234-1601 or (800) 451-6027, ext. 41601 (within Indiana)

Web Access:

http://www.in.gov/idem/water/npdes/permits/wetwthr/storm/rule13.html

CERTIFICATION AND SIGNATURE			
The State of Indiana requires Jerry Rosenberger implement a program to ensure that existing municipal, State or Federa cause or contribute to contamination of storm water discharges. Writte control measures, pesticide use minimization, proper waste disposal, we must be incorporated into this program. This program must be implementated that the Notice of Intent (NOI) letter submittal date.	al operations are performed in ways that do not en documentation of preventative maintenance, waste reduction, and municipal employee training		
▶ The following statement, required by the State of Indiana, and the accompanying signature serve as the required certification that the program has been developed and implemented per the requirements of 327 IAC 15-13 and authorized under NPDES permit number INR040128			
"I certify, under penalty of law, that this program and all required materials were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the above statement is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."			
Authorized Signature <sup>1</sup> : Date:			
Title <sup>2</sup> : MS4 Operator; Town Manager  (typed or printed)	(IIIIIvaavyear)		
<sup>1</sup> The "authorized signature" required above must be either that of the MS4 or responsible individual. <sup>2</sup> The "title" must either be "MS4 operator", or, if a responsible individual signs represented (for example, mayor of the City of Indianapolis).			